

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Lyell Immunopharma, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

83-1300510
(I.R.S. Employer
Identification Number)

201 Haskins Way
South San Francisco, California 94080
(650) 695-0677
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Lynn Seely, M.D.
President and Chief Executive Officer
Lyell Immunopharma, Inc.
201 Haskins Way
South San Francisco, California 94080
(650) 695-0677
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Thomas Greenberg
Skadden, Arps, Slate, Meagher & Flom LLP
One Manhattan West
New York, NY 10001
(212) 735-3000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. The selling stockholder may not sell these securities or accept an offer to buy these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any state where such offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 5, 2025

Preliminary Prospectus



1,900,000

Shares of Common Stock

This prospectus relates to the proposed resale from time to time by Innovative Cellular Therapeutics Holdings Limited, a Cayman Island exempted company incorporated with limited liability ("ICT Holdings"), as the selling stockholder, of up to 1,900,000 shares of our common stock, par value \$0.0001 per share. The shares of common stock registered for resale pursuant to this prospectus were issued as part of the consideration under an Exclusive License Agreement, dated as of November 6, 2025 (the "License Agreement"), by and among us, ICT Holdings and Innovative Cellular Therapeutics, Inc., a Delaware corporation ("ICT" and together with ICT Holdings, the "ICT Group"), pursuant to which the ICT Group granted us an exclusive license to research, develop, manufacture, commercialize and otherwise exploit certain product candidates and products worldwide except in mainland China, Taiwan, Macau and Hong Kong. On November 6, 2025, we issued a total of 1,900,000 shares of our common stock to ICT Holdings in connection with the effectiveness of the License Agreement.

We are registering the shares of our common stock on behalf of ICT Holdings, to be offered and sold by ICT Holdings from time to time. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by ICT Holdings.

This prospectus provides a general description of the common stock ICT Holdings may offer. ICT Holdings may sell the shares of our common stock described in this prospectus in a number of different ways and at varying prices. See the section titled "*Plan of Distribution for Shares Offered by the Selling Stockholder*" on page 21 of this prospectus for more information about how ICT Holdings may sell the shares of common stock being registered pursuant to this prospectus.

We and ICT Holdings have agreed to each be responsible for 50% of the expenses incurred in registering the shares of common stock, including certain legal and accounting fees. ICT Holdings will bear all underwriting discounts, selling commissions and similar fees and arrangements and stock transfer taxes allocable to its sales of the shares of our common stock and certain additional legal and advisor fees.

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol "LYEL." On December 4, 2025, the last reported sale price of our common stock was \$25.46 per share.

Investing in our securities involves a high degree of risk. Before making an investment decision, you should review carefully the risks and uncertainties described under the section titled "[Risk Factors](#)" contained in this prospectus and under similar headings in the documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2025.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), utilizing a “shelf” registration process under the Securities Act of 1933, as amended (the “Securities Act”). Under this shelf registration process, ICT Holdings, as the selling stockholder, which as used herein include donees, pledgees, transferees, distributees or other successors-in-interest selling shares of our common stock or interests in our common stock received after the date of this prospectus from the selling stockholder as a gift, pledge, partnership distribution or other transfer identified in this prospectus, may offer and sell up to 1,900,000 shares of our common stock. This prospectus provides a general description of the shares of our common stock the selling stockholder may offer. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder. For general information about the distribution of shares of common stock offered by the selling stockholder, see the section in this prospectus titled “*Plan of Distribution for Shares Offered by the Selling Stockholder.*”

We urge you to read carefully this prospectus, together with the information incorporated herein by reference as described under the sections titled “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*,” before buying any of the shares of our common stock being offered.

You should rely only on the information contained in, or incorporated by reference into, this prospectus. We have not authorized any other person to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. You should assume that the information appearing in this prospectus and the documents incorporated by reference into this prospectus, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus and the documents incorporated by reference into this prospectus, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus titled “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*.”

The selling stockholder is offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of our securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering

of our securities and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any shares of common stock offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We obtained the industry and market data included or incorporated by reference in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section of this prospectus titled “*Risk Factors*” and documents incorporated by reference into this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by independent parties and by us.

This prospectus, including the information incorporated by reference into this prospectus, includes trademarks, service marks and trade names owned by us or others. All trademarks, service marks and trade names included or incorporated by reference in this prospectus are the property of their respective owners.

This prospectus and the information incorporated herein by reference contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described in the sections titled “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*.”

PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere in this prospectus or incorporated by reference in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read this entire prospectus, including the risks of investing in our securities discussed under the section titled “Risk Factors” and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context requires otherwise, references in this prospectus to “Lyell,” the “Company,” “we,” “us” and “our” refer to Lyell Immunopharma, Inc.

Overview

We are a late-stage clinical cell therapy company advancing a pipeline of proprietary next-generation autologous chimeric antigen receptor (“CAR”) T-cell product candidates for patients with cancer. Our goal is to fully realize the curative potential of cell therapy for patients with hematologic malignancies and solid tumors. To achieve this, we are pioneering novel approaches designed to generate T-cell therapies that drive long-lasting clinical responses. Our investigational CAR T-cell therapies start with the identification of promising cancer targets. We then engineer the patient’s own living immune cells and arm them with one or more of our innovative enhancements, including CAR constructs, technologies or manufacturing protocols that are designed to endow T-cells with more potent cancer cell killing capabilities.

Corporate Information

We were incorporated in June 2018 as a Delaware corporation. Our principal executive offices are located at 201 Haskins Way, South San Francisco, California 94080 and our telephone number is (650) 695-0677. Our website address is www.lyell.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it as part of this prospectus. Our website address is included in this prospectus as an inactive textual reference only.

The Lyell logo and other trademarks or service marks of Lyell Immunopharma, Inc. appearing in this prospectus are the property of Lyell. Other trademarks, service marks or trade names appearing in this prospectus are the property of their respective owners. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

Recent Development

On November 6, 2025 (the “Effective Date”), we entered into the License Agreement with the ICT Group. Under the License Agreement, (i) the ICT Group granted us an exclusive license to research, develop, manufacture, commercialize and otherwise exploit certain product candidates and products worldwide except in mainland China, Taiwan, Macau and Hong Kong and (ii) we (a) paid to ICT Holdings \$40 million in cash and (b) issued to ICT Holdings 1.9 million shares of our common stock. Contingent consideration payable following the Effective Date includes (i) a potential \$30 million clinical milestone payment, up to \$115 million upon achievement of certain late-stage regulatory milestones and up to \$675 million in commercial sales milestones, (ii) up to an additional 1.85 million shares of our common stock (the “ICT Contingent Equity Consideration”) upon achievement of certain clinical and regulatory milestones and (iii) tiered royalties ranging from mid-single digits up to 10% on annual net sales in the United States and low to mid-single-digit royalties on annual net sales in other countries within the licensed territory.

The Offering

The Securities the Selling Stockholder May Offer

The selling stockholder, ICT Holdings, may offer up to 1,900,000 shares of our common stock, from time to time in one or more offerings under this prospectus, at prices and on terms to be determined by market conditions at the time of any offering. This prospectus provides you with a general description of the common stock the selling stockholder may offer.

The selling stockholder may sell shares of our common stock directly to investors or to or through agents, underwriters or dealers. The selling stockholder and its agents or underwriters reserve the right to accept or reject all or part of any proposed purchase of shares of our common stock. If the selling stockholder does offer shares of our common stock to or through agents or underwriters, a prospectus supplement, if required, will be distributed, which will include, among other things:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid; and
- details regarding options to purchase additional shares, if any.

We may suspend the sale of our shares of common stock by the selling stockholder pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional material information.

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. Subject to preferences that may be applicable to any then-outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends as may be declared by our board of directors out of legally available funds. Upon our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any then-outstanding shares of preferred stock. Holders of our common stock have no preemptive rights and no right to convert their common stock into any other securities.

There are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future. In this prospectus, we have summarized certain general features of our common stock under the section titled “*Description of Capital Stock — Common Stock*.”

Use of Proceeds	We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares of our common stock by the selling stockholder.
Nasdaq Global Select Market Listing	Our common stock is listed on the Nasdaq Global Select Market under the symbol “LYEL.”
Risk Factors	See “Risk Factors” on page 4 of this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risks and uncertainties discussed under the section titled “*Risk Factors*” contained in our most recent Annual Report on Form 10-K, as updated by our subsequent Quarterly Reports on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC, which are incorporated by reference into this prospectus in their entirety, together with other information in this prospectus and the other documents incorporated by reference into this prospectus. The risks described in these documents are not the only ones we face. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occur, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our securities to decline, resulting in a loss of all or a part of your investment. Please also read carefully the section below titled “*Special Note Regarding Forward-Looking Statements*.”

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, as well as the documents incorporated by reference in this prospectus, contain “forward-looking statements” within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, product candidates, planned nonclinical studies and clinical trials, results of nonclinical studies and clinical trials, research and development costs, planned regulatory submissions, regulatory approvals and the timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that are in some cases beyond our control and may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “would,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “believe,” “estimate,” “predict,” “potential” or “continue,” or the negative of these terms or other similar expressions. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- the sufficiency of our existing cash to fund our future operating expenses and capital expenditure requirements;
- the accuracy and timing of our estimates regarding expenses, revenue opportunities, capital requirements and needs for additional financing;
- the scope, progress, results and costs of developing rondecabtagene autoleucel (“ronde-cel,” also known as LYL314), LYL273 (formerly known as GCC19CART) or any other product candidates we may develop or acquire, including both nonclinical studies and clinical trials;
- the timing and costs involved in obtaining and maintaining regulatory approvals of ronde-cel, LYL273 or any other product candidates we may develop or acquire, and the timing or likelihood of regulatory filings and approvals, including any expectations or plans regarding seeking or maintaining special designations, such as Regenerative Medicine Advanced Therapy designation, Orphan Drug designation or Fast Track designation, for our product candidates for various diseases;
- our plans relating to the commercialization of ronde-cel, LYL273 or any other product candidates we may develop or acquire, if approved, including the geographic areas of focus, and our ability to commercially differentiate such product candidates and build a sales force;
- the size of the market opportunities for ronde-cel, LYL273 or any other product candidates we may develop or acquire in each of the diseases we may target;
- our reliance on third parties to conduct research activities for ronde-cel, LYL273 or any other product candidates we may develop or acquire;
- the characteristics, safety, efficacy and therapeutic effects of ronde-cel, LYL273 or any other product candidates we may develop or acquire;
- the advancement of our technology platforms and the effectiveness and expected benefits of any of our technologies and manufacturing processes;
- our estimates of the number of patients in the United States and worldwide who suffer from the diseases we target and the number of patients that may enroll in our clinical trials;
- the progress and focus of the current and planned clinical trials of our product candidates, and the reporting of data from those trials, including the timing thereof;
- the ability of our clinical trials to sufficiently demonstrate the safety and efficacy of ronde-cel, LYL273 or any other product candidates we may develop or acquire, and other clinical trial results;

- the success of competing therapies that are, or may become, available;
- developments relating to our competitors and our industry, including any existing or future competing product candidates or therapies;
- our plans relating to the further development and manufacturing of ronde-cel, LYL273 or any other product candidates we may develop or acquire, including lines of therapy or additional indications that we may pursue;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our potential and ability to successfully manufacture and supply or our ability to contract with third parties to manufacture and supply ronde-cel, LYL273 or any other product candidates we may develop or acquire for clinical trials and for commercial use, if approved;
- the rate and degree of market acceptance, as well as the pricing and reimbursement, of ronde-cel, LYL273 or any other product candidates we may develop or acquire, if approved;
- our continued reliance on third parties to assist us in conducting additional clinical trials of ronde-cel, LYL273 or any other product candidates we may develop or acquire;
- the scope of protection we are able to establish and maintain for intellectual property rights, including covering ronde-cel, LYL273 and other product candidates and technology platforms we may develop or acquire;
- our ability to retain the continued service of our key personnel and to identify, hire and retain additional qualified personnel;
- our expectations regarding the impact of inflation, macroeconomic conditions and geopolitical conflicts on our business and operations, including on our manufacturing suppliers, collaborators, contract research organizations and employees;
- our ability to realize the anticipated benefits of and potential value created by our acquisition of ImmPACT Bio USA, Inc. (“ImmPACT”), our acquisition of rights to LYL273 from the ICT Group or any other acquisition or strategic transaction and our success in commercializing any product candidates we acquire in connection therewith;
- our expectation that our LyFE Manufacturing Center™ and, if applicable, contract drug manufacturing organizations engaged by us, will provide sufficient drug supply for our ongoing and planned clinical trials and through potential commercial launch; and
- our anticipated use of our existing cash, cash equivalents and marketable securities.

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate and financial trends that we believe may affect our business, financial condition, results of operations and prospects, and these forward-looking statements are not guarantees of future performance or development. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in these forward-looking statements. We discuss in greater detail, and incorporate by reference into this prospectus in their entirety, many of these risks and uncertainties under the section titled “*Risk Factors*” contained in our most recent Annual Report on Form 10-K, as updated by our subsequent Quarterly Reports on Form 10-Q, as well as any amendments thereto reflected in subsequent filings with the SEC. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should read

this prospectus together with the documents we have filed with the SEC that are incorporated by reference into this prospectus completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

SELECTED FINANCIAL DATA REFLECTING REVERSE STOCK SPLIT

Reverse Stock Split

At 5:00 p.m. Eastern Time on May 30, 2025, we effected a 1-for-20 reverse stock split of our common stock (the “Reverse Stock Split”). Based on such Reverse Stock Split, the total number of outstanding shares of common stock was adjusted from 296,161,570 shares to approximately 14,808,006 shares on May 30, 2025 (after accounting for cash payments made in lieu of fractional shares). The par value per common share remained unchanged at \$0.0001. The audited consolidated financial statements of Lyell included in the Annual Report on Form 10-K for the year ended December 31, 2024, which are incorporated by reference into this prospectus, are presented without giving effect to the Reverse Stock Split. Except where the context otherwise requires, all information presented in this prospectus has been adjusted to reflect the Reverse Stock Split.

The following selected financial data has been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K filed with the SEC on March 11, 2025, as adjusted to reflect the Reverse Stock Split for all periods presented. Our historical results are not indicative of the results that may be expected in the future and results of interim periods are not indicative of the results for the entire year.

AS REPORTED

<i>(in thousands, except per share amounts)</i>	Year Ended December 31,		
	2024	2023	2022
Net loss available to common stockholders	\$(342,994)	\$(234,632)	\$(183,118)
Net loss per common share, basic and diluted	\$ (1.31)	\$ (0.93)	\$ (0.74)
Weighted average common shares outstanding, basic and diluted	261,480	250,983	247,080
Common shares outstanding at year end	294,876	253,958	249,567

AS ADJUSTED FOR 1-FOR-20 REVERSE STOCK SPLIT (Unaudited)

<i>(in thousands, except per share amounts)</i>	Year Ended December 31,		
	2024	2023	2022
Net loss available to common stockholders	\$(342,994)	\$(234,632)	\$(183,118)
Net loss per common share, basic and diluted	\$ (26.23)	\$ (18.70)	\$ (14.82)
Weighted average common shares outstanding, basic and diluted	13,074	12,549	12,354
Common shares outstanding at year end	14,744	12,698	12,478

USE OF PROCEEDS

All the shares of our common stock to be sold pursuant to this prospectus will be sold by ICT Holdings, as the selling stockholder. We will not receive any of the proceeds from the sale of shares of our common stock by the selling stockholder pursuant to this prospectus.

We and ICT Holdings, the selling stockholder, have agreed to each be responsible for 50% of the expenses incurred in registering the shares of our common stock offered pursuant to this prospectus, including certain legal and accounting fees. ICT Holdings will bear all underwriting discounts, selling commissions and similar fees and arrangements and stock transfer taxes allocable to its sales of the shares of our common stock and certain additional legal and advisor fees.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, pursuant to our amended and restated certificate of incorporation (the “Restated Certificate”), our authorized capital stock consists of 500,000,000 shares of common stock, \$0.0001 par value per share, and 10,000,000 shares of preferred stock, \$0.0001 par value per share. All of our authorized shares of preferred stock are undesignated.

This information may not be complete in all respects and is qualified entirely by reference to the provisions of the Restated Certificate, our amended and restated bylaws (“Bylaws”), our amended and restated investors’ rights agreement with certain investors and purchasers, dated as of March 5, 2020 (the “Investors’ Rights Agreement”), our Registration Rights Agreement with the Representative and certain former stockholders of ImmPACT, dated as of October 31, 2024 (the “2024 Registration Rights Agreement”), our Securities Purchase Agreement with certain institutional and other accredited investors, dated as of July 24, 2025 (the “Securities Purchase Agreement”), our Registration Rights Agreement with ICT Holdings, dated as of November 6, 2025 (the “2025 Registration Rights Agreement”) and the General Corporation Law of the State of Delaware. For information on how to obtain copies of the Restated Certificate, our Bylaws, our Investors’ Rights Agreement, our 2024 Registration Rights Agreement, our Securities Purchase Agreement and our 2025 Registration Rights Agreement, which are exhibits to the registration statement of which this prospectus forms a part, see the section in this prospectus titled “Where You Can Find More Information.”

Common Stock

Voting Rights. Our common stock is entitled to one vote per share on any matter that is submitted to a vote of our stockholders. Our Restated Certificate does not provide for cumulative voting for the election of directors. Our Restated Certificate establishes a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of our stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms. The affirmative vote of holders of at least 66 $\frac{2}{3}$ % of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our Restated Certificate, including provisions relating to amending our Bylaws, the classified structure of our board of directors, the size of our board of directors, removal of directors, director liability, vacancies on our board of directors, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

Economic Rights. Except as otherwise expressly provided in our Restated Certificate or required by applicable law, all shares of common stock will have the same rights and privileges and rank equally, share ratably and be identical in all respects for all matters, including those described below.

- **Dividends.** Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.
- **Liquidation Rights.** On our liquidation, dissolution, or winding-up, the holders of common stock will be entitled to share equally, identically and ratably in all assets remaining after the payment of any liabilities, liquidation preferences and accrued or declared but unpaid dividends, if any, with respect to any outstanding preferred stock, unless a different treatment is approved by the affirmative vote of the holders of a majority of the outstanding shares of such affected class, voting separately as a class.

No Preemptive or Similar Rights. The holders of our shares of common stock are not entitled to preemptive rights, and are not subject to conversion, redemption or sinking fund provisions.

Fully Paid and Non-Assessable. When shares of common stock are issued under this prospectus, the shares will be fully paid and non-assessable.

Preferred Stock

Under the Restated Certificate, our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deterring or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of our common stock.

Voting Rights. The Delaware General Corporation Law provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Economic Rights. Unless we specify otherwise, the preferred stock will rank, with respect to dividends and upon our liquidation, dissolution or winding up:

- senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- on a parity with all of our equity securities the terms of which specifically provide that the equity securities rank on a parity with the preferred stock; and
- junior to all of our equity securities the terms of which specifically provide that the equity securities rank senior to the preferred stock.

The term “equity securities” does not include convertible debt securities.

Fully Paid and Non-Assessable. When we issue shares of preferred stock, such shares will be fully paid and nonassessable.

Registration Rights

Subject to federal securities laws, certain holders of shares of our common stock are entitled to certain rights with respect to registration of such shares under the Securities Act. These shares are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of our Investors’ Rights Agreement, our 2024 Registration Rights Agreement, our Securities Purchase Agreement and our 2025 Registration Rights Agreement, as described in additional detail below. The registration of shares of our common stock pursuant to the exercise of such registration rights would enable the holders to trade these shares without restriction under the Securities Act when an applicable registration statement is declared effective by the SEC. In general, we will pay the registration expenses, other than underwriting discounts, selling commissions and stock transfer taxes, of the shares registered in connection with the exercise of such demand rights and piggyback rights, and associated Form S-3 registration statements, as applicable. With respect to the shares held by ICT Holdings, we and ICT Holdings have agreed to each be responsible for 50% of the expenses incurred in registering such shares of common stock, including certain legal and accounting fees, unless the offering is to be effected as an underwritten offering and the total offering price is not reasonably expected to equal or exceed \$20 million in the aggregate, in which case such expenses shall be borne solely by ICT Holdings. In all instances,

ICT Holdings will bear all underwriting discounts, selling commissions and similar fees and arrangements and stock transfer taxes allocable to its sales of the shares of our common stock and certain additional legal and advisor fees in accordance with the 2025 Registration Rights Agreement.

Investors' Rights Agreement

Certain holders of our common stock are entitled to certain demand registration rights at any time after 180 days after June 16, 2021, the effective date of the registration statement for our initial public offering. The holders of 40% of these shares may request that we register all or a portion of their shares. We are not required to file more than two registration statements which are declared or ordered effective by the SEC. Such request for registration must cover shares with an anticipated aggregate offering price of at least \$35 million.

Additionally, certain holders of shares of our common stock were entitled to, and the necessary percentage of holders waived, their rights to notice of this offering and to include their shares of registrable securities in this offering.

Further, certain holders of shares of common stock will be entitled to certain Form S-3 registration statement registration rights. Holders of 20% of these shares can make a request that we register their shares on a Form S-3 registration statement if we are qualified to file such registration statement and if the reasonably anticipated aggregate net proceeds of the shares offered would equal or exceed \$20 million. We will not be required to file more than two Form S-3 registration statements within any 12-month period.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions and limitations, to limit the number of shares the holders may include. The demand, piggyback and Form S-3 registration statement registration rights will expire no later than five years after our initial public offering in June 2021.

2024 Registration Rights Agreement

On October 31, 2024 (the "Closing Date"), we completed our acquisition of ImmPACT pursuant to an Agreement and Plan of Merger, dated October 24, 2024 (the "Merger Agreement"), by and among ImmPACT, us, Inspire Merger Sub Inc., a Delaware corporation and our indirect, wholly owned subsidiary ("Merger Sub"), and WT Representative LLC, a Delaware limited liability company, solely in its capacity as the representative of the Company Securityholders (as defined in the Merger Agreement), pursuant to which we acquired ImmPACT through the merger of Merger Sub with and into ImmPACT (the "Merger"), with ImmPACT surviving the Merger as the surviving entity and our indirect, wholly owned subsidiary.

In connection with the closing of the Merger, on the Closing Date, we entered into the 2024 Registration Rights Agreement, pursuant to which we agreed to provide former ImmPACT stockholders certain registration rights in connection with the shares of our common stock, including to file shelf registration statements to permit resale of closing stock consideration and equity milestone consideration issuable under the Merger Agreement. The closing stock consideration has been issued in connection with the Closing. The equity milestone consideration was issued on July 2, 2025.

Additionally, upon request by the demanding stockholders to sell any registrable shares of our common stock held by such demanding stockholders in an underwritten offering pursuant to any of the shelf registration statements, we are obligated to effect such an underwritten shelf takedown if the total offering price exceeds \$25 million. WT Representative LLC, solely in its capacity as the representative of the ImmPACT stockholders, on behalf of the demanding stockholders, is not entitled to request such underwritten shelf takedown (i) more than three times in the aggregate or (ii) more than one time in any single calendar year.

Securities Purchase Agreement

Pursuant to the Securities Purchase Agreement, we agreed to provide the purchasers thereto certain registration rights in connection with the shares of our common stock, including to file shelf registration statements to permit resale of common stock issuable under the Securities Purchase Agreement and, if applicable, the shares of common stock issuable upon exercise of the pre-funded warrants, and generally to cause the applicable registration statements to promptly become effective.

2025 Registration Rights Agreement

In connection with the License Agreement, on November 6, 2025, we entered into the 2025 Registration Rights Agreement, pursuant to which we agreed to provide ICT Holdings certain registration rights in connection with the shares of our common stock, including to file shelf registration statements to permit resale of upfront equity consideration and the ICT Contingent Equity Consideration issuable under the License Agreement. The upfront equity consideration has been issued in connection with the effectiveness of the License Agreement.

Additionally, upon request by ICT Holdings to sell all or any registrable shares of our common stock held by it in an underwritten offering pursuant to any of the shelf registration statements, we are obligated to effect such an underwritten shelf takedown if the total offering price exceeds \$18 million. If the total offering price of such underwritten shelf takedown is not reasonably expected to exceed, in the aggregate, \$20 million, the expenses incurred in connection therewith shall be borne and paid by ICT Holdings; in other instances, the expenses incurred therewith shall be borne and paid equally (50/50) by ICT Holdings and us. ICT Holdings is not entitled to request such underwritten shelf takedown (i) more than three times in the aggregate or (ii) more than one time in any single calendar year.

Anti-Takeover Provisions

The provisions of Delaware law, our Restated Certificate and our Bylaws, which are summarized below, may have the effect of delaying, deferring or discouraging another person from acquiring control of our company. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Restated Certificate and Bylaws

Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the voting power of our shares of common stock are able to elect all of our directors. Our Restated Certificate and our Bylaws provide that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. According to our Bylaws, a special meeting of stockholders may only be called by a majority of our board of directors, the chair of our board of directors, or our chief executive officer or president. Our Bylaws require an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors. In addition, our board of directors is divided into three classes with staggered three-year terms. Our Restated Certificate also provides that directors may be removed only for cause by the affirmative vote of the holders of at least 66 $\frac{2}{3}$ % of the shares then entitled to vote at an annual election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

The foregoing provisions will make it more difficult for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these

provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law (“Section 203”). In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, subject to certain exceptions. A “business combination” includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An “interested stockholder” is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation’s voting stock.

Choice of Forum

Our Restated Certificate provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) and any appellate court therefrom is the sole and exclusive forum for the following claims or causes of action under the Delaware statutory or common law: (i) any derivative claim or cause of action brought on our behalf; (ii) any claim or cause of action for a breach of fiduciary duty owed by any of our current or former directors, officers or other employees to us or our stockholders; (iii) any claim or cause of action against us or any of our current or former directors, officers or other employees arising out of or pursuant to any provision of the Delaware General Corporation Law, our Restated Certificate or our Bylaws (as each may be amended from time to time); (iv) any claim or cause of action seeking to interpret, apply, enforce or determine the validity of our Restated Certificate or our Bylaws (as each may be amended from time to time, including any right, obligation, or remedy thereunder); (v) any claim or cause of action as to which the Delaware General Corporation Law confers jurisdiction to the Court of Chancery of the State of Delaware; and (vi) any claim or cause of action against us or any of our current or former directors, officers or other employees governed by the internal-affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court’s having personal jurisdiction over the indispensable parties named as defendants. Our Restated Certificate further provides that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against a defendant to such complaint. The choice of forum provisions would not apply to claims or causes of action brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

For the avoidance of doubt, these provisions are intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than

those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Additionally, our Restated Certificate provides that any person or entity holding, owning or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, but will not waive our compliance with federal securities laws and the rules and regulations thereunder.

Limitation of Liability and Indemnification Matters

Our Restated Certificate contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our Restated Certificate authorizes us to indemnify our directors, officers, employees and other agents to the fullest extent permitted by Delaware law. Each of our Restated Certificate and Bylaws provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law and may indemnify our other employees and agents. Our Bylaws also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our Restated Certificate and Bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC. The transfer agent's address is 28 Liberty Street, Floor 53, New York, NY 10005.

Rule 144

Pursuant to Rule 144 under the Securities Act (“Rule 144”), a person who has beneficially owned our restricted common stock for at least six months would be entitled to sell their shares of our common stock provided that (i) such person is not deemed to have been our affiliate at the time of, or at any time during the three months preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least three months before the sale and have filed all required reports under Section 13 or 15(d) of the Exchange Act during the 12 months (or such shorter period as required to file such reports) preceding the sale.

Persons who have beneficially owned our restricted common stock for at least six months but who are our affiliates at the time of, or at any time during the three months preceding, a sale would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of shares of our common stock that does not exceed the greater of:

- 1% of the total number of shares of our common stock then outstanding; or
- the average weekly reported trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales by our affiliates under Rule 144 are also limited by manner of sale provisions and notice requirements and by the availability of current public information about us.

Listing on the Nasdaq Global Select Market

Our common stock is listed on the Nasdaq Global Select Market under the symbol “LYEL.”

SELLING STOCKHOLDER

We have prepared this prospectus to allow ICT Holdings, as the selling stockholder, which as used herein includes donees, pledgees, transferees, distributees or other successors-in-interest selling shares of our common stock or interests in our common stock received after the date of this prospectus from the selling stockholder as a gift, pledge, partnership distribution or other transfer, to offer and sell from time to time up to 1,900,000 shares of our common stock (which does not include the ICT Contingent Equity Consideration issuable under the License Agreement upon achievement of certain clinical and regulatory milestones). We are registering the offer and sale of the shares beneficially owned by the selling stockholder to satisfy certain registration obligations that we granted the selling stockholder pursuant to the 2025 Registration Rights Agreement.

The following table set forth, based upon information currently known by us as of the date of this prospectus, (i) the name of the selling stockholder, (ii) the aggregate number of shares of common stock beneficially owned by the selling stockholder, (iii) the aggregate number of shares of common stock that the selling stockholder may offer pursuant to this prospectus and (iv) the number of shares of common stock beneficially owned by the selling stockholder assuming all of the shares covered hereby are sold. We have based percentage ownership of securities beneficially owned prior to this offering on 21,243,954 shares of our common stock outstanding as of December 1, 2025. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale or other disposition of any shares.

We have determined beneficial ownership in accordance with the rules and regulations of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnote below, we believe, based on information furnished to us, that ICT Holdings has sole voting and sole investment power with respect to all shares that they beneficially own, subject to applicable community property laws.

To our knowledge, ICT Holdings does not hold any position or office, or otherwise had a material relationship, with us or any of our subsidiaries within the past three years prior to the date of this prospectus other than as a result of the ownership of our securities.

See the section in this prospectus titled “*Plan of Distribution for Shares Offered by the Selling Stockholder*” for further information regarding the selling stockholder’s methods of distributing these securities.

We cannot advise you as to whether the selling stockholder will in fact sell any or all of our shares of common stock. The selling stockholder may sell or otherwise transfer all, some or none of such shares of our common stock in this offering.

Name of Selling Stockholder	Securities Beneficially Owned Prior to Offering		Securities to be Sold in this Offering	Securities Beneficially Owned After this Offering	
	Shares of Common Stock	Percentage		Shares of Common Stock	Percentage
Innovative Cellular Therapeutics Holdings Limited ⁽¹⁾	1,900,000	8.9%	1,900,000	—	—

- (1) Lei Xiao, as the Chief Executive Officer of Innovative Cellular Therapeutics Holdings Limited, has voting, investment and dispositive power over the shares held by Innovative Cellular Therapeutics Holdings Limited. The address of Innovative Cellular Therapeutics Holdings Limited is 50 W Gude Dr., Ste. 60, Rockville, MD 20850.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depositary or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own such security directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name will be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor will hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depositary will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any applicable trustee or depositary will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the legal holder, we have no further responsibility for the payment or notice even if that legal holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Whether and how the legal holders contact the indirect holders is up to the legal holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in an applicable prospectus supplement, DTC will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under the section titled "*Special Situations When a Global Security Will Be Terminated*" in this prospectus. As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If a prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks, brokers or other financial institutions to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in an applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

Any applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by such applicable prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION FOR SHARES OFFERED BY THE SELLING STOCKHOLDER

We are registering for resale by ICT Holdings, as the selling stockholder, up to 1,900,000 shares of common stock. The selling stockholder, which as used herein include donees, pledgees, transferees, distributees or other successors-in-interest selling shares of our common stock or interests in our common stock received after the date of this prospectus from the selling stockholder as a gift, pledge, partnership distribution or other transfer may, from time to time, sell, transfer, distribute or otherwise dispose of certain of their shares of common stock or interests in our common stock on any stock exchange, market or trading facility on which shares of our common stock are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholder may use any one or more of the following methods when disposing of its shares of common stock or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- one or more underwritten offerings;
- block trades in which the broker-dealer will attempt to sell the shares of common stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its accounts;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- distributions to its shareholders;
- short sales effected after the date of the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- in-market transactions, including transactions on a national securities exchange or quotations service or over-the-counter market;
- directly to one or more purchasers;
- through agents;
- through agreements with broker-dealers, who may agree with the selling stockholder to sell a specified number of such shares of common stock at a stipulated price per share; and
- a combination of any such methods of sale.

The selling stockholder may, from time to time, pledge or grant a security interest in some shares of our common stock owned by it and, if the selling stockholder defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell such shares of common stock from time to time, under this prospectus, or under an amendment or supplement to this prospectus to include the pledgee, transferee or other successors in interest as the selling stockholder under this prospectus. The selling stockholder also may transfer shares of our common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of shares of our common stock or interests therein, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of our common stock in the course of hedging the positions they assume. The selling stockholder may

also sell shares of our common stock short and deliver these securities to close out its short positions, or loan or pledge shares of our common stock to broker-dealers that in turn may sell these securities. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities that require the delivery to such broker-dealer or other financial institution of shares of our common stock offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholder from the sale of shares of our common stock offered by it will be the purchase price of such shares of our common stock less discounts or commissions, if any. The selling stockholder reserves the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of shares of our common stock to be made directly or through agents. We will not receive any of the proceeds from any offering by the selling stockholder.

At the time a particular offering of securities is made, a prospectus supplement, if required, will be distributed, which will set forth the name of the selling stockholder, the aggregate amount of securities being offered and the terms of the offering, including, to the extent required, (1) the name or names of any underwriters, broker-dealers or agents, (2) any discounts, commissions and other terms constituting compensation from the selling stockholder and (3) any discounts, commissions or concessions allowed or reallocated to be paid to broker-dealers. We may suspend the sale of securities by the selling stockholder pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional material information.

The selling stockholder also may in the future resell a portion of our common stock in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule, or pursuant to other available exemptions from the registration requirements of the Securities Act.

The selling stockholder and any underwriters, broker-dealers or agents that participate in the sale of shares of our common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of shares of our common stock or warrants may be underwriting discounts and commissions under the Securities Act. If the selling stockholder is an “underwriter” within the meaning of Section 2(11) of the Securities Act, then the selling stockholder will be subject to the prospectus delivery requirements of the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us and the selling stockholder, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

To the extent required, our common stock to be sold, the purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable discounts, commissions, concessions or other compensation with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

To facilitate the offering of shares of our common stock offered by the selling stockholder, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. This may include over-allotments or short sales, which involve the sale by persons participating in the offering of more shares of common stock than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of our common stock by bidding for or purchasing shares of common stock in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if shares of common stock sold by them are repurchased in connection with stabilization transactions. The effect of these

transactions may be to stabilize or maintain the market price of our common stock at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

Under the 2025 Registration Rights Agreement, we have agreed to indemnify the selling stockholder against certain liabilities that they may incur in connection with the sale of the securities registered hereunder, including liabilities under the Securities Act. In addition, we and the selling stockholder may agree to indemnify any underwriter, broker-dealer or agent against certain liabilities related to the selling of the securities, including liabilities arising under the Securities Act.

Under the 2025 Registration Rights Agreement, we have agreed to maintain the effectiveness of this registration statement until all securities covered by the 2025 Registration Rights Agreement have been sold under this registration statement, have been transferred without restrictive legends, may be sold under Rule 144 under the Securities Act or are no longer outstanding.

The selling stockholder may use this prospectus in connection with resales of shares of our common stock. This prospectus and any accompanying prospectus supplement will identify the selling stockholder, the terms of our common stock and any material relationships between us and the selling stockholder. The selling stockholder may be deemed to be underwriters under the Securities Act in connection with shares of our common stock they resell and any profits on the sales may be deemed to be underwriting discounts and commissions under the Securities Act. Unless otherwise set forth in a prospectus supplement, the selling stockholder will receive all of the net proceeds from the resale of shares of our common stock.

The selling stockholder may elect to make an in-kind distribution of common stock to its shareholders pursuant to the registration statement of which this prospectus is a part by delivering a prospectus. To the extent that such shareholders are not affiliates of ours, such shareholders would thereby receive freely tradable shares of common stock pursuant to the distribution through a registration statement.

We and ICT Holdings have agreed to each be responsible for 50% of the expenses incurred in the registration of shares of our common stock to be offered and sold pursuant to this prospectus, including certain legal and accounting expenses. ICT Holdings will bear all underwriting discounts, selling commissions and similar fees and arrangements and stock transfer taxes allocable to its sales of the shares of our common stock and certain additional legal and advisor fees.

LEGAL MATTERS

Skadden, Arps, Slate, Meagher & Flom LLP has passed upon the validity of the securities offered by this prospectus.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth or incorporated by reference in such registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus. Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-40502):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on March 11, 2025;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025 and September 30, 2025, filed with the SEC on [May 13, 2025](#), [August 12, 2025](#) and [November 12, 2025](#);
- our Current Reports on Form 8-K and 8-K/A, filed with the SEC on [January 10, 2025](#), [January 24, 2025](#), [April 1, 2025](#), [May 21, 2025](#), [May 28, 2025](#), [June 9, 2025](#), [June 17, 2025](#), [June 26, 2025](#), [July 25, 2025](#), [September 16, 2025](#), [November 3, 2025](#), [November 10, 2025](#) and [December 5, 2025](#), respectively, in each case other than information furnished under Item 2.02 or 7.01 of Form 8-K (and exhibits filed on such form that are related to such items);
- the portions of the Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 21, 2025, that are incorporated by reference into our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024; and
- the description of our common stock in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, which will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings update and supplement the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later-filed document modify or replace such earlier statements. We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

LYELL IMMUNOPHARMA, INC.
Attn: General Counsel
201 Haskins Way
South San Francisco, CA 94080
(650) 695-0677

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth an estimate of the fees and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the issuance and distribution of the securities being registered. All the amounts shown are estimates, except for the SEC registration fee.

	Amount
SEC registration fee	\$ 5,651.88
Accounting fees and expenses	\$ 20,000.00
Legal fees and expenses	\$ *
Transfer agent and registrar fees and expenses	\$ *
Printing and miscellaneous fees and expenses	\$ 7,000.00
Total	\$ *

* Estimated expenses not presently known.

Item 15. Indemnification of Directors and Executive Officers

Section 145 of the Delaware General Corporation Law, authorizes a court to award, or a corporation's board of directors to grant indemnity to directors and executive officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. Our Restated Certificate permits indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our Bylaws that provide that we will indemnify our directors and executive officers and permit us to indemnify our employees and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and executive officers, whereby we have agreed to indemnify our directors and executive officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or executive officer was, or is threatened to be made, a party by reason of the fact that such director or executive officer is or was a director, executive officer, employee, or agent of Lyell, provided that such director or executive officer acted in good faith and in a manner that the director or executive officer reasonably believed to be in, or not opposed to, the best interest of Lyell.

At present, there is no pending litigation or proceeding involving a director or executive officer of Lyell regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act, that might be incurred by any director or officer in his capacity as such. Insofar as indemnification for liabilities arising under the Securities Act may be permitted for directors, executive officers or persons controlling us, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits
EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
2.1	Agreement and Plan of Merger, dated as of October 24, 2024, by and among ImmPACT Bio USA Inc., Lyell Immunopharma, Inc., Inspire Merger Sub Inc. and WT Representative LLC, solely in its capacity as the Representative	8-K	001-40502	2.1	October 24, 2024	
3.1	Amended and Restated Certificate of Incorporation	S-8	333-257249	4.1	June 21, 2021	
3.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation	8-K	001-40502	3.1	May 28, 2025	
3.3	Amended and Restated Bylaws	8-K	001-40502	3.1	December 5, 2025	
4.1	Form of Common Stock Certificate	10-Q	001-40502	4.1	August 12, 2025	
4.2	Amended and Restated Investors' Rights Agreement, dated as of March 5, 2020, by and among Lyell Immunopharma, Inc. and certain of its stockholders	S-1	333-256470	4.2	May 25, 2021	
4.3	Registration Rights Agreement, dated as of October 31, 2024, by and among Lyell Immunopharma, Inc., each of the Sellers Party thereto and WT Representative LLC, solely in its capacity as the Representative of the Sellers	8-K	001-40502	10.1	October 31, 2024	
4.4	Securities Purchase Agreement, dated as of July 24, 2025, by and among Lyell Immunopharma, Inc. and the Purchasers party thereto	8-K	001-40502	10.1	July 25, 2025	
4.5	Registration Rights Agreement, dated as of November 6, 2025, by and between Lyell Immunopharma, Inc. and Innovative Cellular Therapeutics Holdings Limited					X
5.1	Opinion of Skadden, Arps, Slate, Meagher & Flom LLP					X
23.1	Consent of Independent Registered Public Accounting Firm					X
23.2	Consent of Skadden, Arps, Slate, Meagher & Flom LLP (See Exhibit 5.1)					X
24.1	Power of Attorney (See signature page)					X
107	Filing Fee Table					X

Item 17. Undertakings

The undersigned registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
2. That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
4. That, for the purpose of determining liability under the Securities Act to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

5. That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
6. That, for the purpose of determining any liability of the registrant under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on December 5, 2025.

LYELL IMMUNOPHARMA, INC.

By: /s/ Lynn Seely
Lynn Seely, M.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Lynn Seely and Mark Meltz, and each of them, as true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for them and in their name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, and generally to do all such things in their names and behalf in their capacities as officers and directors to enable Lyell Immunopharma, Inc. to comply with the provisions of the Securities Act, and all requirements of the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Lynn Seely</u> Lynn Seely, M.D.	President, Chief Executive Officer and Director <i>(Principal Executive and Financial Officer)</i>	December 5, 2025
<u>/s/ Veronica Sanchez Bulis</u> Veronica Sanchez Bulis	Vice President, Corporate Controller <i>(Principal Accounting Officer)</i>	December 5, 2025
<u>/s/ Richard D. Klausner</u> Richard D. Klausner, M.D.	Chair of the Board of Directors	December 5, 2025
<u>/s/ Mark Bachleda</u> Mark Bachleda, Pharm.D.	Director	December 5, 2025
<u>/s/ Otis Brawley</u> Otis Brawley, M.D.	Director	December 5, 2025
<u>/s/ Catherine Friedman</u> Catherine Friedman	Director	December 5, 2025
<u>/s/ Elizabeth Nabel</u> Elizabeth Nabel, M.D.	Director	December 5, 2025
<u>/s/ Sumant Ramachandra</u> Sumant Ramachandra, M.D., Ph.D.	Director	December 5, 2025
<u>/s/ William Rieflin</u> William Rieflin	Director	December 5, 2025

REGISTRATION RIGHTS AGREEMENT

by and between

LYELL IMMUNOPHARMA, INC.

and

INNOVATIVE CELLULAR THERAPEUTICS HOLDINGS LIMITED

November 6, 2025

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (this “Agreement”) is made and entered into as of November 6, 2025 (the “Effective Date”), by and between Lyell Immunopharma, Inc., a Delaware corporation (the “Company”), and Innovative Cellular Therapeutics Holdings Limited, a Cayman Island exempted company incorporated with limited liability (“ICT Holdings”).

RECITALS

WHEREAS, contemporaneously with the entry into this Agreement, the parties hereto and Innovative Cellular Therapeutics, Inc., a Delaware corporation (“ICT” and together with ICT Holdings, the “ICT Group”), entered into that certain Exclusive License Agreement (the “License Agreement”), pursuant to which, among other things, on the Effective Date, (i) the ICT Group shall grant to the Company an exclusive license to research, develop, manufacture, commercialize and otherwise exploit the Product Candidates and Products throughout the Lyell Territory and (ii) the Company shall direct its transfer agent to issue to ICT Holdings one million nine hundred thousand (1,900,000) shares of Common Stock registered in the name of ICT Holdings (the “Upfront Stock Payment”);

WHEREAS, pursuant to Section 6.2 of the License Agreement and subject to the provisions thereof, ICT Holdings may become eligible to receive a number of shares of Common Stock equal in the aggregate to the non-cash portion of the Development Milestone Payments (the “Development Milestone Equity Payments” and, together with the Upfront Stock Payment, the “Securities”) upon the achievement of the Development Milestones; and

WHEREAS, the parties hereto desire to enter into an agreement to provide for certain rights and obligations associated with the Securities.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each party hereto, the parties hereto hereby agree as follows:

ARTICLE I

DEFINITIONS

Section 1.1 Definitions. Capitalized terms used but not defined herein shall have their meanings set forth in the License Agreement.

“Adverse Disclosure” shall mean any public disclosure of material non-public information, which disclosure, in the good faith judgment of the chief executive officer or chief financial officer of the Company, after consultation with counsel to the Company, (i) would be required to be made in any Shelf Registration Statement in order for the applicable Shelf Registration Statement not to contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein (in the case of any prospectus and any preliminary prospectus, in the light of the circumstances under which they were made) not misleading, (ii) would not be required to be made at such time if the Shelf Registration Statement were not being filed or was effective, and (iii) the Company has a *bona fide* business purpose for not making such information public.

“Affiliate” means, with respect to a particular Person, another Person that directly or indirectly controls, is controlled by, or is under common control with such Person for so long as such control exists. For the purposes of this definition, the word “control” (including, with correlative meaning, the terms “controlled by” or “under the common control with”) means the possession, directly or indirectly through one or more intermediaries, of (a) the power to direct or cause the direction of management or policies of the applicable Person (whether through ownership of securities or other ownership interests, by contract or otherwise), or (b) beneficial ownership of more than (50%) of the voting securities or other ownership interest (whether directly or pursuant to any option, warrant, convertible securities, or other similar arrangement) or other comparable equity interests of an entity.

“Agreement” has the meaning specified therefor in the introductory paragraph of this Agreement.

“Authority” means any domestic (including federal, state or local) or foreign court, arbitrator, administrative, regulatory or other governmental department, agency, official, commission, tribunal, authority or instrumentality, non-government authority or self-regulatory body (including any domestic or foreign securities exchange).

“Beneficially Own” has the meaning ascribed to it in Section 13(d) of the Exchange Act. “Beneficial Ownership” has a correlative meaning.

“Business Day” means a day that is neither a Saturday or Sunday, nor any other day on which banking institutions in San Francisco, California or Shanghai, China, are authorized or obligated by Law to close.

“Common Stock” means the common stock, par value \$0.0001 per share, of the Company, and any class or classes of securities issued or issuable with respect to such common stock by way of reclassification, dividend or distribution or in connection with any reorganization or other recapitalization, merger, consolidation or otherwise.

“Company” has the meaning specified therefor in the introductory paragraph of this Agreement and includes any successor thereto.

“Damages” means any loss, damage or liability to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage or liability arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company filed pursuant to this Agreement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated in any preliminary prospectus or final prospectus filed pursuant to this Agreement, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law in connection with any offer or sale of Securities pursuant to this Agreement.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

“FINRA” means the Financial Industry Regulatory Authority, Inc.

“ICT” has the meaning specified therefor in the recitals of this Agreement.

“ICT Group” has the meaning specified therefor in the recitals of this Agreement.

“ICT Holdings” has the meaning specified therefor in the recitals of this Agreement.

“License Agreement” has the meaning specified therefor in the recitals of this Agreement.

“Managing Underwriter” means, with respect to any Underwritten Offering, the book running lead manager of such Underwritten Offering.

“Nasdaq” means Nasdaq Global Select Market.

“Person” means any natural person, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, foundation, unincorporated organization or Authority or other agency or political subdivision thereof.

“Registrable Securities” means the Securities, upon original issuance thereof, or any shares or other securities of the Company (or any successor or assign of the Company) issued in respect of such Registrable Securities because of or in connection with any stock dividend, stock distribution, stock split, recapitalization, purchase in any rights offering or in connection with any exchange for or replacement of such Registrable Securities or any combination of shares, recapitalization, merger or consolidation, or any other equity securities issued pursuant to any other pro rata distribution with respect to the Common Stock or other Registrable Securities, until such time as such securities cease to be Registrable Securities pursuant to Section 1.2 hereof.

“Registration Expenses” has the meaning specified therefor in Section 2.7(a) of this Agreement.

“Rule 144” means Rule 144 promulgated under the Securities Act or any similar rule or regulation hereafter adopted by the SEC having substantially the same effect as such rule.

“SEC” means the U.S. Securities and Exchange Commission (or any successor agency).

“Securities Act” means the Securities Act of 1933, as amended.

“Selling Expenses” means all underwriting discounts, selling commissions or similar fees or arrangements or stock transfer taxes allocable to the sale of the Registrable Securities, and fees and disbursements of any additional counsel or advisors to ICT Holdings, other than those fees and disbursements of counsel required to be paid by the Company pursuant to Section 2.7(a) of this Agreement.

“Shelf Registration” has the meaning specified therefor in Section 2.1(b) of this Agreement.

“Shelf Registration Statement” has the meaning specified therefor in Section 2.1(b) of this Agreement.

“Termination Date” has the meaning specified therefor in Section 3.15 of this Agreement.

“Transfer” means to, directly or indirectly, sell, transfer, assign, pledge, encumber, hypothecate or similarly dispose of, either voluntarily or involuntarily, or to enter into any contract, option or other arrangement or understanding with respect to the sale, transfer, assignment, pledge, encumbrance, hypothecation or similar disposition of, Registrable Securities.

“Underwriter” means a securities dealer who purchases any Registrable Securities as principal in an Underwritten Offering and not as part of such dealer’s market-making activities.

“Underwritten Offering” shall mean a Registration in which securities of the Company are sold to an Underwriter in a firm commitment underwriting for distribution to the public.

Section 1.2 Registrable Securities. Any Registrable Security will cease to be a Registrable Security (a) when a registration statement covering such Registrable Security becomes or has been declared effective by the SEC and such Registrable Security has been sold or disposed of pursuant to such effective registration statement; (b) when such Registrable Security may be sold without registration pursuant to Rule 144 (but with no volume or other restrictions or limitations including as to manner or timing of sale) and any transfer restrictive legend has been removed with respect to such securities; or (c) such securities cease to be outstanding.

ARTICLE II

REGISTRATION RIGHTS

Section 2.1 Shelf Registration.

(a) Effective Date Shelf Registration. The Company shall, as soon as practicable after the Effective Date, but in any event within 30 calendar days after the Effective Date, prepare and file a “shelf” registration statement (the “Effective Date Shelf Registration Statement”) with the SEC to permit the resale of the Registrable Securities from time to time pursuant to Rule 415 promulgated under the Securities Act (the “Effective Date Shelf Registration”).

(b) Milestone Shelf Registration. Unless such Registrable Securities have been included for resale in the Effective Date Shelf Registration, the Company shall, as soon as practicable, but in any event within 30 calendar days, after the Company notifies the ICT Group of the applicable Development Milestone, file a “shelf” registration statement (and together with the Effective Date Shelf Registration Statement, the “Shelf Registration Statements” and each a “Shelf Registration Statement”) to permit the resale of the applicable Development Milestone Equity Payment portion of the Registrable Securities from time to time pursuant to Rule 415 promulgated under the Securities Act (and together with the Effective Date Shelf Registration, the “Shelf Registrations” and each a “Shelf Registration”). The term “Shelf Registration Statement” shall include any prospectus to such Shelf Registration Statement, amendments and supplements to such Shelf Registration Statement and any prospectus, including post-effective amendments, and all exhibits and materials incorporated by reference in such Shelf Registration Statement.

(c) Registration Statements. Each Shelf Registration Statement shall be on Form S-3 or, if Form S-3 is not then available to the Company, on Form S-1 or such other form of registration statement as is then available to effect a registration for the offer and sale of the applicable Registrable Securities. If permitted under the Securities Act, such Shelf Registration Statement shall be one that is automatically effective upon filing and, if such registration is not automatically effective, the Company shall use its commercially reasonable efforts to have such Shelf Registration Statement declared effective as soon as practicable after the filing thereof, but no later than the earlier of (a) the 75th calendar day following the filing date thereof if the SEC notifies the Company that it will “review” such Shelf Registration Statement and (b) the 5th Business Day after the date the Company is notified (orally or in writing, whichever is earlier) by the SEC that such Shelf Registration Statement will not be “reviewed” or will not be subject to further review. ICT Holdings shall provide all information reasonably requested by the Company (which request shall be made no later than five Business Days prior to the anticipated filing date of such Shelf Registration Statement) in connection with the filing of such Shelf Registration Statement (including, but not limited to, information regarding ICT Holdings, the applicable Registrable Securities held by ICT Holdings and the intended method of disposition of such Registrable Securities). Not less than three Business Days prior to filing of such Shelf Registration Statement, the Company shall furnish via email to ICT Holdings copies of all such documents proposed to be filed (other than any document that is incorporated or deemed to be incorporated by reference therein) for review by ICT Holdings. The Company shall reflect in each such document when so filed with the SEC such comments provided by ICT Holdings as ICT Holdings may reasonably and promptly propose no later than two Business Days after ICT Holdings has been furnished with copies of such documents. The Company shall use commercially reasonable efforts to cause such Shelf Registration Statement to remain effective, and to be supplemented and amended to the extent available and necessary to ensure that such Shelf Registration Statement is available or, if not available, that another registration statement is available, for the resale of all the applicable Registrable Securities until such time as there are no longer any such Registrable Securities; *provided, however*, that the Company shall not be required to supplement or amend any registration statement to reflect the transfer of any Registrable Securities to a new or existing securityholder except upon request of ICT Holdings and in any event not more than four times in any consecutive 12 months (excluding supplements or amendments in connection with an Underwritten Offering). In the event the Company files any Shelf Registration Statement on Form S-1, the Company shall use its commercially reasonable efforts to convert such Shelf Registration Statement into a registration statement on Form S-3 as soon as practicable after Form S-3 is available to the Company.

(d) Requests for Underwritten Shelf Takedown. Subject to Section 2.1(e), at any time and from time to time when any Shelf Registration Statement is effective and until the Termination Date, ICT Holdings may request to sell all or any portion of the Registrable Securities it holds on such Shelf Registration Statement in an Underwritten Offering that is pursuant to such Shelf Registration Statement (each, an “Underwritten Shelf Takedown”); *provided* that the Company shall only be obligated to effect an Underwritten Shelf Takedown if such offering shall include Registrable Securities proposed to be sold by ICT Holdings with a total offering price reasonably expected to exceed, in the aggregate, \$18,000,000. All requests for Underwritten Shelf Takedowns shall be made by written notice from ICT Holdings to the Company, which notice shall specify the approximate number of Registrable Securities proposed to be sold in the Underwritten Shelf Takedown. The Company shall have the right to select the Underwriters for such Underwritten Shelf Takedown (which shall consist of one or more reputable nationally recognized investment banks), subject to the prior written approval (which shall not be unreasonably withheld, conditioned or delayed) of ICT Holdings. ICT Holdings shall not be entitled to request an Underwritten Shelf Takedown pursuant to this Section 2.1(d) (i) more than three times in the aggregate or (ii) more than one time in any single calendar year.

(e) Basis of Participation. ICT Holdings may not sell Registrable Securities in any Underwritten Offering (including any Underwritten Offering pursuant to Section 2.1(d)) unless it (i) agrees to sell such Registrable Securities on substantially the same basis provided in the underwriting or other distribution arrangements approved by the Company and ICT Holdings (which approval will not be unreasonably withheld, conditioned or delayed) that apply to the Company and/or ICT Holdings, as applicable, and (ii) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements, lockups and other customary documents as may be reasonably required under the terms of such arrangements; *provided*, however, that ICT Holdings shall not be required to make any representations, warranties or indemnities to the Company or any Underwriter (other than representations, warranties and indemnities regarding ICT Holdings’ ownership of its Registrable Securities to be sold or transferred, ICT Holdings’ power and authority to effect such transfer, such matters pertaining to compliance with securities laws as may be reasonably requested by the Company or the Underwriters, and to ICT Holdings’ intended method of distribution, and the liability of ICT Holdings shall be limited to an amount equal to the net proceeds from the Underwritten Offering received by ICT Holdings.

(f) Delay Rights. Notwithstanding anything to the contrary contained herein, the Company may, upon written notice to ICT Holdings, delay the filing or effectiveness of a Shelf Registration or execution of an Underwritten Shelf Takedown under this Section 2.1 or, suspend the use of any prospectus which is a part of a registration statement filed under this Section 2.1 (in which event ICT Holdings shall discontinue sales of the Registrable Securities pursuant to such registration statement but may settle any previously contracted sales of Registrable Securities) if the Company notifies ICT Holdings in writing that the Company would be required to make an Adverse Disclosure; *provided*, however, in no event shall (A) such filing of the registration statement under Section 2.1 be delayed under this Section 2.1(f) for a period that exceeds 90 days in the aggregate in any 12-month period, or (B) ICT Holdings be suspended under this Section 2.1(f) from selling Registrable Securities pursuant to such registration statement for a period that exceeds 30 consecutive days or 90 days in the aggregate in any 12-month period. Upon notice by the Company to ICT Holdings of any Board determination to

delay the filing of a registration statement under Section 2.1 or suspend the use of any prospectus which is a part of a registration statement filed under Section 2.1, ICT Holdings shall refrain from making offers and sales of Registrable Securities during the pendency of such delay or suspension, keep the fact of any such delay or suspension strictly confidential and not use or disclose such notice or information to any Person other than ICT Holdings' legal counsel, broker, advisors, Affiliates or as required by law. If, pursuant to this Section 2.1(f), the Company delays an Underwritten Shelf Takedown requested by ICT Holdings, ICT Holdings shall be entitled to withdraw its request to participate in the Underwritten Shelf Takedown and, if it does so, such request shall not count against the limitations on the number of such registrations set forth in Section 2.1(d). Upon disclosure of such information or the termination of the condition described above, the Company shall promptly notify ICT Holdings and shall promptly terminate any suspension of sales it has put into effect and shall take such other actions to permit registered sales of Registrable Securities as contemplated in this Agreement.

Section 2.2 Registration Procedures. In connection with its obligations under this Article II, the Company will promptly:

(a) prepare and file with the SEC, and use its commercially reasonable efforts to cause to be declared or become effective as soon as reasonably practicable, and promptly notify ICT Holdings of such effectiveness, each registration statement contemplated by this Agreement with respect to all Registrable Securities as provided herein, and make all required filings with FINRA; *provided, that*, upon the occurrence of any event that would cause any registration statement or the prospectus contained therein to contain a material misstatement or omission, the Company shall file an appropriate amendment to the registration statement, a supplement to the prospectus, or a report filed with the SEC pursuant to Section 13(a), 14 or 15(d) of the Exchange Act, correcting any such misstatement or omission, and the Company shall use its commercially reasonable efforts to cause such amendment to be declared or become effective and the registration statement and the related prospectus to become usable for their intended purposes as soon as practicable thereafter;

(b) (i) prepare and file with the SEC such amendments and supplements to each registration statement and the prospectus used in connection therewith as may be necessary to cause the registration statement to be effective and as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by the registration statement; and (ii) if a prospectus supplement will be used in connection with the marketing of an Underwritten Offering from a registration statement contemplated by this Agreement and the Managing Underwriter at any time shall notify ICT Holdings that, in the reasonable judgment of such Managing Underwriter, inclusion of detailed information to be used in such prospectus supplement is of material importance to the success of the Underwritten Offering of such Registrable Securities, or if such information is required by applicable law (including the rules and regulations of the SEC), include such information in a prospectus supplement; *provided, that*, before filing any registration statement, prospectus or any amendments or supplements thereto the Company shall furnish at least five Business Days prior to such filing via email to ICT Holdings copies of all such documents proposed to be filed (other than any document that is incorporated or deemed to be incorporated by reference therein) for review by ICT Holdings; the Company shall consider in good faith in each such document when so filed with the SEC such comments provided by ICT Holdings as ICT Holdings may reasonably and promptly propose no later than two Business Days after ICT Holdings has been furnished with copies of such documents;

(c) furnish to ICT Holdings such number of copies of the registration statement and the prospectus included therein and any supplements and amendments thereto as ICT Holdings may reasonably request in order to facilitate the public sale or other disposition of the Registrable Securities covered by the registration statement;

(d) if applicable, use its commercially reasonable efforts to register or qualify the Registrable Securities covered by any registration statement contemplated by this Agreement under the securities or blue sky laws of such jurisdictions as ICT Holdings or, in the case of an Underwritten Offering, the Managing Underwriter, shall reasonably request, to use its commercially reasonable efforts to keep such registration or qualification in effect for so long as such registration statement remains in effect, and to take any other action which may be reasonably necessary or advisable to enable ICT Holdings to consummate the disposition in such jurisdictions of the securities owned by ICT Holdings, *provided, that*, the Company will not be required to qualify generally to transact business in any jurisdiction where it is not then required to so qualify, subject itself to taxation in any jurisdiction where it is not then taxed, or to take any action which would subject it to general service of process in any such jurisdiction where it is not then so subject;

(e) promptly notify ICT Holdings and each Underwriter of Registrable Securities, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of (i) the filing of any registration statement contemplated by this Agreement or any prospectus or prospectus supplement to be used in connection therewith, or any amendment or supplement thereto, and, with respect to such registration statement or any post-effective amendment thereto contemplated by this Agreement, when the same has become effective; and (ii) receipt of any written comments from the SEC with respect to any filing referred to in clause (i) and any written request by the SEC for amendments or supplements to any registration statement contemplated by this Agreement or any prospectus or prospectus supplement thereto;

(f) promptly notify ICT Holdings and each Underwriter of Registrable Securities, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of (i) the happening of any event as a result of which the prospectus or prospectus supplement contained in any registration statement contemplated by this Agreement or any post-effective amendment thereto, as then in effect, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; (ii) the issuance by the SEC of any stop order suspending the effectiveness of any registration statement contemplated by this Agreement, or the initiation of any proceedings for that purpose; or (iii) the receipt by the Company of any notification with respect to the suspension of the qualification of any Registrable Securities for sale under the applicable securities or blue sky laws of any jurisdiction. Following the provision of such notice, the Company agrees to, as promptly as reasonably practicable, amend or supplement the prospectus or prospectus supplement or take other appropriate action so that the prospectus or prospectus supplement does not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, and to use its commercially reasonable efforts to take such other action as is necessary to remove a stop order, suspension, threat thereof or proceedings related thereto;

(g) furnish to ICT Holdings copies of any and all transmittal letters or other correspondence with the SEC or any other governmental agency or self-regulatory body or other body having jurisdiction (including any domestic or foreign securities exchange) relating to such offering of Registrable Securities or any such registration statement relating to the offering of Registrable Securities;

(h) in the case of an Underwritten Offering, use its commercially reasonable efforts to furnish, or cause to be furnished, upon request and addressed to the underwriters, placement agents or sales agents, as applicable, and to ICT Holdings, (i) an opinion and negative assurance letter of counsel for the Company, dated the effective date of the applicable registration statement or the date of any amendment or supplement thereto, and an opinion and letter of like kind dated the date of the closing under the underwriting agreement, and (ii) a "comfort letter," dated the effective date of the applicable registration statement or the date of any amendment or supplement thereto and a letter of like kind dated the date of the closing under the underwriting agreement or other purchase or sales agreement, in each case, signed by the independent public accountants included or incorporated by reference into the applicable registration statement), and each such opinion and "comfort letter" shall be in customary form and cover substantially the same matters with respect to such registration statement (and the prospectus and any prospectus supplement included therein) as are customarily covered in opinions of issuer's counsel and in accountants' letters delivered to the underwriters in Underwritten Offerings of securities, and such other matters as such underwriters or placement or sales agents or ICT Holdings may reasonably request;

(i) otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to its security holders, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, but not more than 18 months, beginning with the first full calendar month after the effective date of such registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 promulgated thereunder;

(j) make available to the appropriate representatives of the Managing Underwriter and ICT Holdings access to such information and the Company personnel as is reasonable and customary to enable such parties to establish a due diligence defense under the Securities Act; *provided, that*, the Company need not disclose any information to any such representative unless and until such representative has entered into a customary confidentiality agreement with the Company or is otherwise subject to an obligation of confidentiality;

(k) use its commercially reasonable efforts to cause all Registrable Securities registered pursuant to this Agreement to be listed on Nasdaq or another nationally recognized quotation system on which similar securities issued by the Company are then listed or quoted;

(l) use its commercially reasonable efforts to cause the Registrable Securities to be registered with or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company to enable ICT Holdings to consummate the disposition of such Registrable Securities;

(m) provide and cause to be maintained a transfer agent and registrar for all Registrable Securities covered by such registration statement not later than the effective date of such registration statement;

(n) enter into customary agreements and use its commercially reasonable efforts to take such other actions as are reasonably requested by ICT Holdings or the underwriters or placement or sales agents, if any, in order to expedite or facilitate the disposition of such Registrable Securities and entry of such Registrable Securities in book-entry with The Depository Trust Company (including, making appropriate officers of the Company available to participate in any “road show” presentations before analysts and other customary marketing activities (including one on one meetings with prospective purchasers of the Registrable Securities));

(o) use its commercially reasonable efforts to cause the Registrable Securities to be initially represented by direct registration with the Company’s transfer agent and provide a CUSIP number for all Registrable Securities and, in connection therewith, if reasonably required by the Company’s transfer agent, the Company shall promptly deliver any authorizations, certificates and directions required by the transfer agent which authorize and direct the transfer agent to issue such Registrable Securities without legend upon sale by the holder of such shares of Registrable Securities under a shelf registration statement, any other registration statement contemplated by this Agreement or in accordance with Section 2.6;

(p) if requested by ICT Holdings, as soon as reasonably practicable (i) incorporate in a prospectus supplement or post-effective amendment such information as ICT Holdings reasonably requests to be included therein relating to the sale and distribution of Registrable Securities, including information with respect to ICT Holdings or any subsequent securityholder, the number of Registrable Securities being offered or sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities to be sold in such offering; (ii) make all required filings of such prospectus supplement or post-effective amendment after being notified of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (iii) supplement or make amendments to the registration statement; and

(q) use its commercially reasonable efforts to take all other steps reasonably necessary to effect the registration of, and facilitate the disposition of, the Registrable Securities contemplated hereby.

Section 2.3 Cooperation by ICT Holdings. The Company shall have no obligation to include in any registration statement contemplated by this Agreement any Registrable Securities of ICT Holdings if ICT Holdings has failed to timely furnish such information that the Company, based on the advice of outside counsel, determines is reasonably required to be furnished or confirmed in order for the registration statement or prospectus supplement thereto, as applicable, to comply with the Securities Act.

Section 2.4 Restrictions on Public Sale of Registrable Securities. ICT Holdings agrees, when participating in an Underwritten Offering of equity securities by the Company, if requested by such Managing Underwriter or Underwriters with respect to such Underwritten Offering, not to effect any public sale or distribution of the Registrable Securities for a period of up to 90 days following completion of such Underwritten Offering, as applicable, *provided* that (i) the Company gives written notice to ICT Holdings of the date of the commencement and termination of such period with respect to any such Underwritten Offering and (ii) the duration of the foregoing restrictions shall be no longer than the duration of the shortest restriction generally imposed by the underwriters of such public sale or distribution on the Company or on the officers or directors or any other shareholder of the Company on whom a restriction is imposed. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply to ICT Holdings, if subject to such agreements, based on the number of shares subject to such agreements.

Section 2.5 Orderly Disposition. ICT Holdings agrees that for six months following the date hereof, it may not Transfer more than 10% of the average daily trading volume of the Common Stock on Nasdaq over the five (5) Business Day period ending on the Business Day immediately prior to date of such proposed Transfer or, if such Transfer would exceed the foregoing threshold, to make such Transfer pursuant to a block trade or other disposition through a market participant designated by the Company. Notwithstanding the foregoing, this section will not preclude sales pursuant to a *bona fide* third party tender offer for all outstanding shares of Common Stock, merger, consolidation or other similar transaction made to all holders of the Company's securities involving a change of control of the Company (including the entering into any lock-up, voting or similar agreement pursuant to which ICT Holdings may agree to transfer, sell, tender or otherwise dispose of the Registrable Securities or other such securities in connection with such transaction, or vote any Registrable Securities or other such securities in favor of any such transaction).

Section 2.6 Legends. Subject to receipt from ICT Holdings by the Company and the Company's transfer agent (the "Transfer Agent") of customary representations and other documentation reasonably acceptable to the Company and the Transfer Agent in connection therewith, ICT Holdings may request in writing that the Company remove any legend from the book-entry position evidencing the Registrable Securities, and the Company will, if required by the Transfer Agent, use its commercially reasonable efforts to cause an opinion of the Company's counsel be provided, in a form reasonably acceptable to the Transfer Agent to the effect that the removal of such restrictive legends in such circumstances may be effected under the Securities Act, (1) following the time the applicable Shelf Registration Statement is declared effective, (2) if such Securities have been sold pursuant to Rule 144 or any other applicable exemption from registration requirements of the Securities Act or (3) are eligible for resale under Rule 144(b)(1) or any successor provision without the requirement for the Company to be in compliance with the current public information requirement under Rule 144 and without volume or manner-of-sale restrictions applicable to the sale or transfer of such Registrable Securities. If restrictive legends are no longer required for such Securities pursuant to the foregoing, the Company shall, within two Business Days of any request in writing (email being sufficient) therefor from ICT Holdings accompanied by such customary and reasonably acceptable representations and other documentation referred to above establishing that restrictive legends are no longer required, deliver to the Transfer Agent irrevocable instructions to make a new,

unlegended entry for such book entry Securities. Notwithstanding the foregoing, within five Business Days following the one-year anniversary of the applicable issue date of the Securities, the Company shall remove, and shall direct the Transfer Agent to remove, any legend from the book entry position evidencing such Securities to the extent such Securities are eligible for resale under Rule 144(b)(1) or any successor provision without the requirement for the Company to be in compliance with the current public information requirement under Rule 144 and without volume or manner-of-sale restrictions applicable to the sale or transfer of such Securities. ICT Holdings will only sell the Securities pursuant either the registration requirements of the Securities Act, including applicable prospectus delivery requirements, or an exemption therefrom, and that if such Securities are sold pursuant to a Shelf Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

Section 2.7 Expenses.

(a) Certain Definitions. “Registration Expenses” means all expenses incurred in connection with the Company’s performance under or compliance with this Agreement to effect the registration of Registrable Securities on any registration statement, prospectus or prospectus supplement or amendment or supplement contemplated by this Agreement, an Underwritten Offering covered under this Agreement, and/or the disposition of such securities, including, without limitation, all registration, filing, securities exchange listing fees, all registration, filing, qualification and other fees and expenses of complying with securities or blue sky laws, fees of FINRA and fees of transfer agents and registrars, all word processing, duplicating and printing expenses, and the reasonable and documented fees and disbursements of (x) one counsel to ICT Holdings, and (y) counsel and independent public accountants for the Company, including the expenses of any legal opinions or letters, special audits or “comfort letters” required by such performance and compliance.

(b) Expenses. All Registration Expenses, other than Selling Expenses, incurred as a result of ICT Holdings’ request for an Underwritten Shelf Takedown pursuant to Section 2.1(d) herein with a total offering price not reasonably expected to exceed, in the aggregate, \$20,000,000 shall be borne and paid by ICT Holdings. In all other instances, all Registration Expenses, other than Selling Expenses, shall be borne and paid equally (50/50) by ICT Holdings and the Company. All Selling Expenses shall be borne and paid by ICT Holdings. In the event that ICT Holdings does not pay some, or all, Selling Expenses, the Company may pay such Selling Expenses and have such amounts deducted from the amounts the Company owes to ICT Holdings under the License Agreement.

Section 2.8 Rule 144 Reporting. With a view to making available the benefits of certain rules and regulations of the SEC that may permit the sale of the Registrable Securities to the public without registration, the Company shall:

(a) make and keep public information regarding the Company available, as those terms are understood and defined in Rule 144, at all times from and after the Effective Date until there are no Registrable Securities outstanding;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act at all times from and after the Effective Date until there are no Registrable Securities outstanding;

(c) so long as ICT Holdings owns any Registrable Securities, furnish to ICT Holdings forthwith upon request (i) a written statement by the Company whether it has complied with the reporting requirements of SEC Rule 144, the Securities Act and the Exchange Act and (ii) a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed as ICT Holdings may reasonably request in availing itself of any rule or regulation of the SEC allowing ICT Holdings to sell any such securities without registration; and

(d) take such further action as ICT Holdings may reasonably request to enable them to sell Registrable Securities without registration under the Securities Act within the limitations of the exemption provided by Rule 144, including, without limitation, delivering customary legal opinions, consents, certificates, resolutions and instructions to the Transfer Agent without unreasonable delay, and in each case as may be reasonably requested from time to time by ICT Holdings, and otherwise use commercially reasonable efforts to cooperate with ICT Holdings' broker in their efforts to effect such sale of securities pursuant to Rule 144.

Section 2.9 Information by ICT Holdings. ICT Holdings shall promptly furnish to the Company such information regarding ICT Holdings and the distribution proposed by ICT Holdings as the Company may reasonably request and as shall be required in connection with any registration, qualification or compliance referred to herein.

Section 2.10 Limitation on Subsequent Registration Rights. From and after the date of this Agreement until there are no Registrable Securities outstanding, the Company shall not, without the prior written consent of ICT Holdings, enter into any agreement, take any action or permit any change to occur with respect to its securities that subordinates, conflicts with, or would impair the rights granted to ICT Holdings pursuant to, and subject to any conditions or limitations thereon contained in this Agreement. For clarity, the Company shall not allow any subsequent holder or prospective holder of the Company's securities to include such securities in any registration statement pursuant to this Agreement unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration statement pursuant to this Agreement only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of ICT Holdings that are included.

Section 2.11 Joinder: Additional Parties. Subject to Section 2.10 herein, the Company shall from time to time permit any Company securityholder who is issued Securities to become a party to this Agreement and to be entitled to and be bound by all of the rights and obligations provided herein by obtaining an executed joinder to this Agreement from such Company securityholder in the form of Exhibit A attached hereto (a "Joinder"). Upon the execution and delivery of a Joinder by such Company securityholder, the Securities beneficially owned by such Company securityholder shall become Registrable Securities, and such Company securityholder shall be deemed to hold rights and obligations equivalent to ICT Holdings as provided herein.

Section 2.12 Indemnification. If any Registrable Securities are included in a registration statement pursuant to this Agreement:

(a) To the extent permitted by law, the Company will indemnify and hold harmless ICT Holdings, and the Affiliates, partners, members, officers, directors, and equityholders of ICT Holdings; legal counsel and accountants for ICT Holdings; any Underwriter; and each Person, if any, who controls ICT Holdings or Underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to ICT Holdings, Underwriter, controlling Person, or other aforementioned Person any reasonable and documented legal or other expenses incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.12(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of ICT Holdings, Underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, ICT Holdings will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any Underwriter, any other securityholder selling securities in such registration statement, and any controlling Person of any such Underwriter or other securityholder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of ICT Holdings expressly for use in connection with such registration; and ICT Holdings will pay to the Company and each other aforementioned Person any reasonable and documented legal or other expenses incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.12(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of ICT Holdings, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by ICT Holdings by way of indemnity or contribution under Sections 2.12(b) and 2.12(d) exceed the proceeds from the offering received by ICT Holdings (net of any Selling Expenses paid by ICT Holdings), except in the case of fraud or willful misconduct by ICT Holdings.

(c) Promptly after receipt by an indemnified party under this Section 2.12 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.12, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel selected by the indemnifying party and reasonably satisfactory to the indemnified party; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if

representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.12, only to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.12.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.12 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.12 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.12, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; *provided, however*, that, in any such case (x) ICT Holdings will not be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by ICT Holdings pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and *provided further* that in no event shall ICT Holdings' liability pursuant to this Section 2.12(d), when combined with the amounts paid or payable by ICT Holdings pursuant to Section 2.12(b), exceed the proceeds from the offering received by ICT Holdings (net of any Selling Expenses paid by ICT Holdings), except in the case of willful misconduct or fraud by ICT Holdings.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; *provided, however*, that any matter expressly provided for or addressed by the provisions of this Section 2.12 that is not expressly provided for or addressed by the underwriting agreement shall be controlled by the foregoing provisions.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the Underwritten Offering, the obligations of the Company and ICT Holdings under this Section 2.12 shall survive the completion of any offering of Registrable Securities in a registration statement pursuant to this Agreement, and otherwise shall survive the termination of this Agreement or any provision(s) of this Agreement.

ARTICLE III

MISCELLANEOUS

Section 3.1 Notices. Any notice required or permitted to be given under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be addressed to the appropriate party at the email address or street address specified below or such other address as may be specified by such party in writing in accordance with this Section 3.1, and shall be deemed to have been given for all purposes (a) when received, if emailed (and receipt is confirmed), hand-delivered or sent by a reputable international expedited delivery service, or (b) five (5) Business Days after mailing, if mailed by first class certified or registered mail, postage prepaid, return receipt requested:

If to ICT Holdings: Innovative Cellular Therapeutics Holdings Limited
50 W Gude Dr, Suite 60
Rockville, MD 20850
Attn: Le (Lee) Tian
 Lei (Larry) Xiao
Email: leetian@ictbioinc.com
 xiaolei@ictbio.com

With a copy (which shall not constitute notice) to:
JAB Law, PLLC
One Boston Place, Suite 2600
Boston, MA 02108
Attn: Jennifer A. Bock
 Jed A. Gordon
Email: jbock@jablawgroup.com
 jgordon@jablawgroup.com

If to Lyell: Lyell Immunopharma, Inc.
201 Haskins Way
South San Francisco, CA 94080
Attn: General Counsel
Email: legal@lyell.com

With a copy to (which shall not constitute notice) to:
Skadden, Arps, Slate, Meagher & Flom LLP
One Manhattan West
New York, NY 10001
Attn: Thomas W. Greenberg
 Resa K. Schlossberg
Email: thomas.greenberg@skadden.com
 resa.schlossberg@skadden.com

or, if to a transferee of ICT Holdings, to the transferee at the address specified pursuant to Section 3.3 below. All notices and communications shall be deemed to have been duly given (a) when received, if emailed (and receipt is confirmed), hand-delivered or sent by a reputable international expedited delivery service, or (b) five (5) Business Days after mailing, if mailed by first class certified or registered mail, postage prepaid, return receipt requested.

Section 3.2 Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the permitted successors and assigns of each of the parties, including subsequent holders of Registrable Securities to the extent permitted herein.

Section 3.3 Assignment of Rights. All or any portion of the rights and obligations of ICT Holdings under this Agreement may be transferred or assigned by ICT Holdings only in accordance with this Section 3.3. The rights to cause the Company to include Registrable Securities in any registration statement contemplated by this Agreement may be transferred or assigned by ICT Holdings with a transfer of Registrable Securities to any Affiliate of ICT Holdings; *provided*, that (a) the Company is given written notice prior to any said transfer or assignment, stating the name and address of each such transferee and identifying the securities with respect to which such registration rights are being transferred or assigned and (b) as a condition to the effectiveness of such transfer, each such transferee or assignee shall execute a Joinder. The Company may not transfer or assign any portion of its rights and obligations under this Agreement without the prior written consent of ICT Holdings, except that the Company may assign this Agreement at any time in connection with a sale or acquisition of the Company, whether by merger, consolidation, sale of all or substantially all of the Company's assets, or similar transaction.

Section 3.4 Recapitalization Affecting the Stock. The Company agrees that it shall not effect or permit to occur any combination or subdivision of shares of Common Stock or other securities constituting Registrable Securities which would adversely affect the ability of ICT Holdings, if it continues to hold any Registrable Securities, to include such Registrable Securities in any registration contemplated by this Agreement or the marketability of such Registrable Securities in any such registration.

Section 3.5 Specific Performance. The parties agree that irreparable damage, for which monetary damages would not be an adequate remedy, would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached by the parties. Prior to the termination of this Agreement pursuant to Section 3.15, it is accordingly agreed that the parties shall be entitled to an injunction or injunctions, or any other appropriate form of specific performance or equitable relief, to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of competent jurisdiction, in each case in accordance with this Section 3.5, this being in addition to any other remedy to which they are entitled under the terms of this Agreement at law or in equity. Each party accordingly agrees not to raise any objections to the availability of the

equitable remedy of specific performance to prevent or restrain breaches or threatened breaches of, or to enforce compliance with, the covenants and obligations of such party under this Agreement all in accordance with the terms of this Section 3.5. Each party further agrees that no other party or any other Person shall be required to obtain, furnish or post any bond or similar instrument in connection with or as a condition to obtaining any remedy referred to in this Section 3.5, and each party irrevocably waives any right it may have to require the obtaining, furnishing or posting of any such bond or similar instrument.

Section 3.6 Counterparts. This Agreement may be executed in two or more counterparts, including via facsimile or email in "portable document format" (".pdf") form transmission, all of which shall be considered one and the same agreement and shall become effective when two or more counterparts have been signed by each of the parties and delivered to the other parties, it being understood that all parties need not sign the same counterpart.

Section 3.7 Rules of Construction.

(a) The words "this Agreement," "herein," "hereby," "hereunder" and "hereof" and words of similar import, refer to this Agreement as a whole and not to any particular subdivision unless expressly so limited. The words "this Section," "this subsection" and words of similar import, refer only to the Sections or subsections hereof in which such words occur. The word "including" (in its various forms) means "including, without limitation." Pronouns in masculine, feminine or neuter genders shall be construed to state and include any other gender and words, terms and titles (including terms defined herein) in the singular form shall be construed to include the plural and vice versa, unless the context otherwise expressly requires. Unless the context otherwise requires, all defined terms contained herein shall include the singular and plural and the conjunctive and disjunctive forms of such defined terms. Unless the context otherwise requires, all references to a specific time shall refer to Los Angeles time. The word "or" is not exclusive. The word "extent" in the phrase "to the extent" shall mean the degree to which a subject or other thing extends and such phrase shall not mean simply "if." The term "dollars" and the symbol "\$" mean United States Dollars. The headings herein are for convenience of reference only, do not constitute part of this Agreement and shall not be deemed to limit or otherwise affect any of the provisions hereof.

(b) In this Agreement, except as the context may otherwise require, references to: (i) any agreement (including this Agreement), contract, statute or regulation are to the agreement, contract, statute or regulation as amended, modified, supplemented, restated or replaced from time to time (in the case of an agreement or contract, to the extent permitted by the terms thereof and, if applicable, by the terms of this Agreement); (ii) any Authority includes any successor to that Authority; (iii) any applicable law refers to such applicable law as amended, modified, supplemented or replaced from time to time (and, in the case of statutes, include any rules and regulations promulgated under such statute) and references to any section of any applicable law or other law include any successor to such section; and (iv) "days" mean calendar days; when calculating the period of time within which, or following which, any act is to be done or step taken pursuant to this Agreement, the date that is the reference day in calculating such period shall be excluded and if the last day of the period is a non-Business Day, the period in question shall end on the next Business Day or if any action must be taken hereunder on or by a day that is not a Business Day, then such action may be validly taken on or by the next day that is a Business Day.

(a) THIS AGREEMENT, AND ALL CLAIMS OR CAUSES OF ACTION (WHETHER IN CONTRACT OR TORT) THAT MAY BE BASED UPON, ARISE OUT OF OR RELATE TO THIS AGREEMENT, OR THE NEGOTIATION, EXECUTION OR PERFORMANCE OF THIS AGREEMENT, SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT GIVING EFFECT TO THE PRINCIPLES OF CONFLICTS OF LAW THEREOF.

(b) THE PARTIES IRREVOCABLY SUBMIT TO THE JURISDICTION OF THE COURT OF CHANCERY OF THE STATE OF DELAWARE OR, IF THE COURT OF CHANCERY OF THE STATE OF DELAWARE OR THE DELAWARE SUPREME COURT DETERMINES THAT THE COURT OF CHANCERY DOES NOT HAVE OR SHOULD NOT EXERCISE SUBJECT MATTER JURISDICTION OVER SUCH MATTER, THE SUPERIOR COURT OF THE STATE OF DELAWARE AND THE FEDERAL COURTS OF THE UNITED STATES OF AMERICA LOCATED IN THE STATE OF DELAWARE SOLELY IN CONNECTION WITH ANY DISPUTE THAT ARISES IN RESPECT OF THE INTERPRETATION AND ENFORCEMENT OF THE PROVISIONS OF THIS AGREEMENT AND THE DOCUMENTS REFERRED TO IN THIS AGREEMENT OR IN RESPECT OF THE TRANSACTIONS CONTEMPLATED HEREBY, AND HEREBY WAIVE, AND AGREE NOT TO ASSERT, AS A DEFENSE IN ANY ACTION, SUIT OR PROCEEDING FOR INTERPRETATION OR ENFORCEMENT HEREOF OR ANY SUCH DOCUMENT THAT IT IS NOT SUBJECT THERETO OR THAT SUCH ACTION, SUIT OR PROCEEDING MAY NOT BE BROUGHT OR IS NOT MAINTAINABLE IN SAID COURTS OR THAT VENUE THEREOF MAY NOT BE APPROPRIATE OR THAT THIS AGREEMENT OR ANY SUCH DOCUMENT MAY NOT BE ENFORCED IN OR BY SUCH COURTS, AND THE PARTIES IRREVOCABLY AGREE THAT ALL CLAIMS WITH RESPECT TO SUCH ACTION, SUIT OR PROCEEDING SHALL BE HEARD AND DETERMINED EXCLUSIVELY BY SUCH A DELAWARE STATE OR FEDERAL COURT. THE PARTIES HEREBY CONSENT TO AND GRANT ANY SUCH COURT JURISDICTION OVER THE PERSON OF SUCH PARTIES AND OVER THE SUBJECT MATTER OF SUCH DISPUTE AND AGREE THAT MAILING OF PROCESS OR OTHER PAPERS IN CONNECTION WITH SUCH ACTION, SUIT OR PROCEEDING IN THE MANNER PROVIDED IN SECTION 3.1 OR IN SUCH OTHER MANNER AS MAY BE PERMITTED BY LAW SHALL BE VALID AND SUFFICIENT SERVICE THEREOF.

(c) EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES, AND THEREFORE EACH SUCH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT SUCH PARTY MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (I) NO REPRESENTATIVE, AGENT OR

ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER; (II) SUCH PARTY UNDERSTANDS AND HAS CONSIDERED THE IMPLICATIONS OF THE FOREGOING WAIVER; (III) SUCH PARTY MAKES THE FOREGOING WAIVER VOLUNTARILY AND (IV) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVER AND CERTIFICATIONS IN THIS SECTION 3.8.

Section 3.9 Severability of Provisions. Each party agrees that, should any court or other competent authority hold any provision of this Agreement or part hereof to be invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such other term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the License Agreement and this Agreement may be consummated as originally contemplated to the greatest extent possible. Except as otherwise contemplated by this Agreement, in response to an order from a court or other competent authority for any party to take any action inconsistent herewith or not to take an action consistent herewith or required hereby, to the extent that a party took an action inconsistent with this Agreement or failed to take action consistent with this Agreement or required by this Agreement pursuant to such order, such party shall not incur any liability or obligation unless such party did not in good faith seek to resist or object to the imposition or entering of such order.

Section 3.10 Entire Agreement; No Third Party Beneficiaries. This Agreement (together with the License Agreement, and any other documents and instruments executed pursuant thereto and hereto) constitutes the entire agreement and supersedes all prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person other than the parties any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

Section 3.11 Amendment. Any term of this Agreement may be amended and the observance of any term hereof may be waived (either prospectively or retroactively and either generally or in a particular instance) only with the written consent of (a) the Company, and (b) ICT Holdings. Any amendment or waiver adopted with the applicable foregoing consents shall be binding upon all parties to this Agreement. The Company shall give prompt notice of any amendment hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment or waiver.

Section 3.12 Obligations Limited to Parties to Agreement. Each of the parties hereto covenants, agrees and acknowledges that no Person other than ICT Holdings (and its transferees or assignees) and the Company shall have any obligation hereunder and that no recourse under this Agreement shall be had against any former, current or future director, officer, employee, agent, general or limited partner, manager, member, equityholder or Affiliate of ICT Holdings or any former, current or future director, officer, employee, agent, general or limited partner,

manager, member, equityholder or Affiliate of any of the foregoing, whether by the enforcement of any assessment or by any legal or equitable proceeding, or by virtue of any applicable law, it being expressly agreed and acknowledged that no personal liability whatsoever shall attach to, be imposed on or otherwise be incurred by any former, current or future director, officer, employee, agent, general or limited partner, manager, member, equityholder or Affiliate of ICT Holdings or any former, current or future director, officer, employee, agent, general or limited partner, manager, member, equityholder or Affiliate of any of the foregoing, as such, for any obligations of ICT Holdings under this Agreement or for any claim based on, in respect of or by reason of such obligation or its creation.

Section 3.13 Further Assurances. The Company and ICT Holdings shall cooperate with each other and shall take such further action and shall execute and deliver such further documents as may be reasonably requested by any other party in order to carry out the provisions and purposes of this Agreement.

Section 3.14 Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

Section 3.15 Termination. This Agreement shall terminate on such date on which (i) ICT Holdings together with its Affiliates ceases to hold or Beneficially Own any of the Registrable Securities or (ii) all Registrable Securities owned by ICT Holdings may be sold without restriction (including any limitation thereunder on volume or manner of sale without the need for current public information) pursuant to Rule 144; *provided, that*, the provisions of Section 2.7, Section 2.12 and Article III shall survive such termination (such date, the "Termination Date").

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

LYELL IMMUNOPHARMA, INC.

By: /s/ Lynn Seely

Name: Lynn Seely

Title: President & Chief Executive Officer

Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

**INNOVATIVE CELLULAR THERAPEUTICS
HOLDINGS LIMITED**

By: /s/ Larry Lei Xiao

Name: Larry Lei Xiao

Title: Chief Executive Officer

Signature Page to Registration Rights Agreement

EXHIBIT A

Joinder to Registration Rights Agreement

The undersigned is executing and delivering this Joinder pursuant to the Registration Rights Agreement dated as of [•], 2025 (as amended, modified and waived from time to time, the “Registration Rights Agreement”), among Lyell Immunopharma, Inc., a Delaware corporation (the “Company”), and Innovative Cellular Therapeutics Holdings Limited, a Cayman Island exempted company incorporated with limited liability (including pursuant to other Joinders). Capitalized terms used herein have the meaning set forth in the Registration Rights Agreement.

By executing and delivering this Joinder to the Company, the undersigned hereby agrees to become a party to, to be bound by, and to comply with the provisions of, the Registration Rights Agreement in the same manner as if the undersigned were an original signatory to the Registration Rights Agreement on terms equivalent to ICT Holdings, and the undersigned will be deemed for all purposes to have the same rights and obligations as ICT Holdings therein and all of the undersigned’s shares of Common Stock will be deemed for all purposes to be Registrable Securities under the Registration Rights Agreement.

Accordingly, the undersigned has executed and delivered this Joinder as of [•], 2025.

[•]

By: _____
Name:
Title:

SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP
ONE MANHATTAN WEST
NEW YORK, NY 10001

TEL: (212) 735-3000
FAX: (212) 735-2000
www.skadden.com

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TOKYO
TORONTO

December 5, 2025

Lyell Immunopharma, Inc.
201 Haskins Way
South San Francisco, CA 94080

Re: Lyell Immunopharma, Inc. Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as special United States counsel to Lyell Immunopharma, Inc., a Delaware corporation (the “Company”), in connection with the resale by Innovative Cellular Therapeutics Holdings Limited (the “Selling Stockholder”) of up to 1,900,000 shares (the “Shares”) of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”), issued as part of the consideration pursuant to the Exclusive License Agreement, dated as of November 6, 2025 (the “License Agreement”), by and among the Company, the Selling Stockholder and Innovative Cellular Therapeutics, Inc. (together with the Selling Stockholder, the “ICT Group”), pursuant to which ICT Group granted the Company an exclusive license to research, develop, manufacture, commercialize and otherwise exploit certain product candidates and products worldwide except in mainland China, Taiwan, Macau and Hong Kong.

This opinion letter is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933 (the “Securities Act”).

In rendering the opinion stated herein, we have examined and relied upon the following:

(a) the registration statement on Form S-3 of the Company relating to the Shares filed on the date hereof with the Securities and Exchange Commission (the "Commission") under the Securities Act allowing for delayed offerings pursuant to Rule 415 of the General Rules and Regulations under the Securities Act (the "Rules and Regulations") (such registration statement being hereinafter referred to as the "Registration Statement");

(b) the preliminary prospectus, dated as of the date hereof, which forms a part of and is included in the Registration Statement;

(c) an executed copy of the License Agreement;

(d) a specimen certificate evidencing the Common Stock in the form of Exhibit 4.1 to the Registration Statement;

(e) an executed copy of a certificate of Mark Meltz, General Counsel and Corporate Secretary of the Company, as of the date hereof (the "Secretary's Certificate");

(f) a copy of certain resolutions of the Board of Directors of the Company adopted on October 31, 2025, certified pursuant to the Secretary's Certificate;

(g) a copy of the Company's Amended and Restated Certificate of Incorporation, as amended by the Certificate of Amendment filed with the Secretary of State of the State of Delaware on May 27, 2025, as in effect as of the date of the issuance of the Shares and as of the date hereof, certified by the Secretary of State of the State of Delaware as of December 5, 2025, and certified pursuant to the Secretary's Certificate (the "Amended Certificate of Incorporation"); and

(h) a copy of the Company's Amended and Restated Bylaws, as in effect as of the date of issuance of the Shares and as of the date hereof, and certified pursuant to the Secretary's Certificate (the "Amended and Restated Bylaws").

We have also examined originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company and the Selling Stockholder and such agreements, certificates and receipts of public officials, certificates of officers or other representatives of the Company and the Selling Stockholder and others, and such other documents as we have deemed necessary or appropriate as a basis for the opinion stated below.

In our examination, we have assumed the genuineness of all signatures, including electronic signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photocopied copies, and the authenticity of the originals of such copies. With respect to our opinion set forth below, we have assumed that (i) the Company received the consideration for the Shares set forth in the License Agreement and the applicable board resolutions and (ii) the issuance of the Shares has been registered in the Company's share registry. As to any facts relevant to the opinion stated herein

that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and the Selling Stockholder and others and of public officials, including the facts and conclusions set forth in the Secretary's Certificate, the Amended Certificate of Incorporation and the factual representations and warranties set forth in the License Agreement.

We do not express any opinion with respect to the laws of any jurisdiction other than the General Corporation Law of the State of Delaware (the "DGCL").

Based upon the foregoing and subject to the qualifications and assumptions stated herein, we are of the opinion that, the Shares have been duly authorized by all requisite corporate action on the part of the Company under the DGCL and have been validly issued and are fully paid and nonassessable.

In addition, in rendering the foregoing opinion we have assumed that, at all applicable times:

(a) the Company's issuance of the Shares did not (i) except to the extent expressly stated in the opinion contained herein, violate any statute to which the Company or such issuance is subject, or (ii) constitute a violation of, or a breach under, or require the consent or approval of any other person under, any agreement or instrument binding on the Company (except that we do not make this assumption with respect to the Amended Certificate of Incorporation, the Amended and Restated Bylaws or those agreements or instruments expressed to be governed by the laws of the State of New York which are listed in Part II of the Registration Statement or the Company's Annual Report on Form 10-K for the year ended December 31, 2024, although we have assumed compliance with any covenant, restriction or provision with respect to financial ratios or tests or any aspect of the financial condition or results of operations of the Company contained in such agreements or instruments); and

(b) the Company's authorized Common Stock is as set forth in the Amended Certificate of Incorporation, and we have relied solely on the certified copy thereof issued by the Secretary of State of the State of Delaware and have not made any other inquiries or investigations.

This opinion letter shall be interpreted in accordance with customary practice of United States lawyers who regularly give opinions in transactions of this type.

We hereby consent to the reference to our firm under the heading "Legal Matters" in the prospectus forming part of the Registration Statement. We also hereby consent to the filing of this opinion letter with the Commission as an exhibit to the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations.

Very truly yours,

/s/ Skadden, Arps, Slate, Meagher & Flom LLP

TWG

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectus of Lyell Immunopharma, Inc. for the registration of 1,900,000 shares of its common stock, and to the incorporation by reference therein of our report dated March 11, 2025, with respect to the consolidated financial statements of Lyell Immunopharma, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2024, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Mateo, California

December 5, 2025

Calculation of Filing Fee Tables

S-3

Lyell Immunopharma, Inc.

Table 1: Newly Registered and Carry Forward Securities

☐ Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	1 Equity	Secondary Offering: Common Stock, par value \$0.0001 per share	Other	1,900,000	\$ 21.54	40,926,000.00	\$ 0.0001381	\$ 5,651.88				
Fees Previously Paid												
Carry Forward Securities												
Carry Forward Securities												
Total Offering Amounts:						\$ 40,926,000.00		\$ 5,651.88				
Total Fees Previously Paid:								\$ 0.00				
Total Fee Offsets:								\$ 0.00				
Net Fee Due:								\$ 5,651.88				

Offering Note

¹ (1) Estimated in accordance with Rule 457(c) solely for purposes of calculating the registration fee. The proposed maximum offering price per unit and the maximum aggregate offering price are based on the average of the \$22.49 (high) and \$20.59 (low) sales price of the registrant's common stock as reported on the Nasdaq Global Select Market on December 2, 2025, which date is within five business days prior to the filing of this registration statement. (2) Shares of common stock registered for resale pursuant to this registration statement are shares which are to be offered by the selling securityholder named herein. In the event of a stock split, stock dividend or recapitalization involving the common stock, the number of shares registered shall automatically be adjusted to cover the additional shares of common stock issuable pursuant to Rule 416 under the Securities Act of 1933, as amended.

Table 2: Fee Offset Claims and Sources

☒ Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rule 457(p)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3: Combined Prospectuses

☒ Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A