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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 29, 2023

Lyra Therapeutics, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-39273**	**84-1700838**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**
480 Arsenal Way **Watertown, Massachusetts** **(Address of Principal Executive Offices)**		**02472** **(Zip Code)**

Registrant's Telephone Number, Including Area Code: 617 393-4600

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.001 par value per share	LYRA	The Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On March 29, 2023, Lyra Therapeutics, Inc. (the "Company") announced its financial results for the year ended December 31, 2022. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in Item 2.02 of this Current Report on Form 8-K (including Exhibit 99.1 attached hereto) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly provided by specific reference in such a filing.

Item 8.01 Other Events.

On March 29, 2023, the Company posted a slide presentation in the "Investors & News" portion of its website at investors.lyratherapeutics.com, which includes information about the Company and its product candidates, including anticipated milestones for the ENLIGHTEN Phase 3 Program for LYR 210 and the BEACON Phase 2 Program for LYR 220, both of which are the Company's product candidates for chronic rhinosinusitis. A copy of this slide presentation is attached to this Current Report on Form 8-K as Exhibit 99.2. The Company undertakes no obligation to update, supplement or amend the materials attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Lyra Q4 2022 Earnings Release Dated March 29, 2023
99.2	Lyra Corporate Presentation Dated March 29, 2023
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

LYRA THERAPEUTICS, INC.

Date: March 29, 2023

By: /s/ Jason Cavalier
Chief Financial Officer

Exhibit 99.1

Lyra Therapeutics Reports Fourth Quarter and Full Year 2022 Financial Results and Provides Corporate Update

-- ENLIGHTEN I Pivotal Phase 3 Trial of LYR-210 in Pre-Surgical Chronic Rhinosinusitis (CRS) on Track to Complete Enrollment in mid-2023 --

-- Data from BEACON Phase 2 Trial of LYR-220 in Post-Surgical CRS Anticipated Q4 2023 --

-- Advancing In-House Manufacturing Capabilities to Prepare for Commercial Production --

WATERTOWN, Mass., March 29, 2023 -- Lyra Therapeutics, Inc. (Nasdaq: LYRA) ("Lyra" or the "Company"), a clinical-stage biotechnology company developing innovative therapies for the localized treatment of chronic rhinosinusitis (CRS), today reported its financial results for the fourth quarter and full year ended December 31, 2022 and provided a corporate update.

"2022 was a transformative year for Lyra. We initiated three clinical trials that we believe will build on the strong clinical data we have generated to date and confirm the value of Lyra's drug-device technology for patients living with chronic rhinosinusitis," said Maria Palasis, Ph.D., President and CEO of Lyra. "We look forward to sharing results from the BEACON Phase 2 trial in post-surgical CRS patients in Q4 2023 as we continue to advance the ENLIGHTEN pivotal Phase 3 program of LYR-210 in pre-surgical CRS patients."

Dr. Palasis continued, "Our recent decision to transition manufacturing in-house to optimize the quality and supply of our product positions Lyra for long-term success. We have manufactured product to enable us to resume enrollment in the second pivotal trial, ENLIGHTEN II, earlier than planned, and are now expanding our in-house capabilities to prepare for commercial-stage manufacturing."

2022 Key Program Highlights

- **Initiated two pivotal Phase 3 clinical trials of LYR-210 in Chronic Rhinosinusitis (CRS) in Surgically Naïve Patients (ENLIGHTEN I and ENLIGHTEN II)**:
    - The ENLIGHTEN program consists of two Phase 3 clinical trials (ENLIGHTEN I and ENLIGHTEN II) to evaluate the efficacy and safety of LYR-210 for the treatment of CRS. Each trial is enrolling 180 CRS patients who have failed medical management and have not had prior ethmoid sinus surgery, randomized 2:1 to either LYR-210 (7500µg mometasone furoate (MF)) or control. The aim of the two pivotal trials is to support an anticipated New Drug Application to the U.S. Food and Drug Administration for LYR-210.
    - Enrollment is ongoing in ENLIGHTEN I, with enrollment completion anticipated in mid- 2023.
    - As previously announced, Lyra temporarily paused enrollment in ENLIGHTEN II to align the trial with the availability of clinical supply. The Company anticipates resuming enrollment in the ENLIGHTEN II trial in Q2 2023, ahead of the previously reported timeline of Q3 2023.

- **Initiated BEACON Phase 2 trial of LYR-220 in CRS patients who remain symptomatic despite having had prior sinus surgery**:
    - The BEACON Phase 2 trial is a 24-week study evaluating the safety and efficacy of LYR-220 (7500µg MF) in 40 patients with CRS who remain symptomatic despite having had prior sinus surgery. Enrollment in BEACON is complete, with data expected in Q4 2023.
    - In September 2022, Lyra announced positive initial data from the Part 1, non-randomized portion of the BEACON trial, demonstrating the feasibility and tolerability of LYR-220 placement bilaterally in post-surgical CRS patients. All six patients were treated for at least six weeks and no serious or unexpected product-related adverse events were reported.
- **Transitioned manufacturing to in house:**
    - In Q4 2022, Lyra announced the transition of manufacturing to in-house, leveraging its expertise to reliably supply product without relying on third-party manufacturers.
    - Lyra is now advancing its in-house manufacturing capabilities to prepare for commercial production.

Upcoming 2023 Milestones

- Resume enrollment in ENLIGHTEN II Phase 3 pivotal trial of LYR-210 in Q2 2023
- Complete enrollment in ENLIGHTEN I Phase 3 pivotal trial of LYR-210 in mid-2023
- Report topline results from BEACON Phase 2 study of LYR-220 in Q4 2023

Fourth Quarter and Full Year 2022 Financial Highlights

- Cash, cash equivalents and short-term investments were $97.9 million as of December 31, 2022, compared to $109.6 million as of September 30, 2022. The Company expects its cash, cash equivalents and short-term investments balance to be sufficient to fund its planned operations into mid-2024.
- Research and development expenses for the fourth quarter and full year ended December 31, 2022 were $9.5 million and $38.8 million, respectively, compared to $10.3 million and $29.7 million for the same periods in 2021. The increase year over year was primarily driven by higher clinical development costs related to the Company's three ongoing clinical trials and employee-related expenses.

- General and administrative expenses for the fourth quarter and full year ended December 31, 2022 were $4.4 million and $17.6 million, respectively, compared to $3.6 million and $14.2 million for the same periods in 2021. The increase was primarily driven by higher employee-related costs, including stock-based compensation.
- The Company recorded an impairment charge of $1.3 million related to long-lived assets for the year ended December 31, 2022.
- Net loss for the fourth quarter and full year ended December 31, 2022 was $14.2 million and $55.3 million, respectively, compared to $13.6 million and $43.5 million for the same periods in 2021.

About Lyra Therapeutics

Lyra Therapeutics, Inc. is a clinical-stage biotechnology company developing therapies for the localized treatment of patients with chronic rhinosinusitis (CRS). Lyra has two investigational product candidates, LYR-210 and LYR-220, in late-stage development for CRS, a highly prevalent inflammatory disease of the paranasal sinuses which leads to debilitating symptoms and significant morbidities. LYR-210 and LYR-220 are bioresorbable nasal implants designed to be administered in a brief, in-office procedure and are intended to deliver six months of continuous mometasone furoate drug therapy (7500µg MF) to the sinonasal passages. LYR-210 is designed for surgically naïve patients and is being evaluated in the ENLIGHTEN Phase 3 clinical program, while LYR-220, an enlarged implant, is being evaluated in the BEACON Phase 2 clinical trial in patients who have recurrent symptoms despite having had prior ethmoid sinus surgery. These two product candidates are designed to treat the estimated four million CRS patients in the United States who fail medical management each year. For more information, please visit www.lyratx.com and follow us on LinkedIn.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including statements regarding the Company's cash runway through mid-2024, the Company's pipeline of product candidates, the enrollment and success of the ENLIGHTEN Phase 3 program, the timing for reporting top line data from the Company's clinical trials, the Company's ability to manufacture its product candidates, and the success of the Phase 2 BEACON trial. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause the company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the fact that the company has incurred significant losses since inception and expects to incur additional losses for the foreseeable future; the company's need for additional funding, which may not be available; the company's limited operating history; the fact that the company has no approved products; the fact that the company's product candidates are in various stages of development; or the fact that the company may not be successful in its efforts to identify and successfully commercialize its product candidates; the fact

that clinical trials required for the company's product candidates are expensive and time-consuming, and their outcome is uncertain; the fact that the FDA may not conclude that certain of the company's product candidates satisfy the requirements for the Section 505(b)(2) regulatory approval pathway; the company's inability to obtain required regulatory approvals; effects of recently enacted and future legislation; the possibility of system failures or security breaches; effects of significant competition; the fact that the successful commercialization of the company's product candidates will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and pricing policies; failure to achieve market acceptance; product liability lawsuits; the fact that the company must scale its in-house manufacturing capabilities or rely on third parties for the manufacture of materials for its research programs, pre-clinical studies and clinical trials; the company's reliance on third parties to conduct its preclinical studies and clinical trials; the company's inability to succeed in establishing and maintaining collaborative relationships; the company's reliance on certain suppliers critical to its production; failure to obtain and maintain or adequately protect the company's intellectual property rights; failure to retain key personnel or to recruit qualified personnel; difficulties in managing the company's growth; effects of natural disasters, terrorism and wars (including the developing conflict between Ukraine and Russia); the fact that the global pandemic caused by COVID-19 could adversely impact the company's business and operations, including the company's clinical trials; the fact that the price of the company's common stock may be volatile and fluctuate substantially; significant costs and required management time as a result of operating as a public company and any securities class action litigation. These and other important factors discussed under the caption "Risk Factors" in the company's Annual Report on Form 10-K filed with the SEC on March 29, 2023 and its other filings with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While the company may elect to update such forward-looking statements at some point in the future, it disclaims any obligation to do so, even if subsequent events cause its views to change.

LYRA THERAPEUTICS, INC.
Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share data)

	Year Ended December 31,	
	2022	2021
Collaboration revenue	$ 1,363	$ 285
Operating expenses:		
Research and development	38,797	29,694
General and administrative	17,556	14,206
Loss on impairment of long-lived assets	1,316	—
Total operating expenses	57,669	43,900
Loss from operations	(56,306)	(43,615)
Other income:		
Interest income	1,041	102
Total other income	1,041	102
Loss before income tax expense	(55,265)	(43,513)
Income tax expense	(13)	—
Net loss	(55,278)	(43,513)
Other comprehensive income:		
Unrealized holding gain on short-term investments, net of tax	10	—
Comprehensive loss	$ (55,268)	$ (43,513)
Net loss per share —basic and diluted	$ (1.83)	$ (3.35)
Weighted-average common shares outstanding—basic and diluted	30,235,689	12,986,101

LYRA THERAPEUTICS, INC.
Consolidated Balance Sheets

(in thousands, except share and per share data)

	December 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 32,550	$ 45,747
Short-term investments	65,344	—
Prepaid expenses and other current assets	2,935	2,171
Total current assets	100,829	47,918
Property and equipment, net	2,243	4,503
Operating lease right-of-use assets	2,223	1,355
Restricted cash	1,392	329
Other assets	3,281	762
Total assets	$ 109,968	$ 54,867
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,616	$ 3,125
Accrued expenses and other current liabilities	9,030	4,258
Operating lease liabilities	1,549	1,074
Deferred revenue	1,275	9,789
Total current liabilities	14,470	18,246
Operating lease liabilities, net of current portion	667	379
Deferred revenue, net of current portion	14,077	1,926
Total liabilities	29,214	20,551
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value; 10,000,000 shares authorized at December 31, 2022 and 2021; no shares issued and outstanding at December 31, 2022 and 2021	—	—
Common stock, $0.001 par value; 200,000,000 shares authorized at December 31, 2022 and 2021; 31,827,659 and 13,007,178 shares issued and outstanding at December 31, 2022 and 2021, respectively	32	13
Additional paid-in capital	329,387	227,700
Accumulated other comprehensive income, net of tax	10	—
Accumulated deficit	(248,675)	(193,397)
Total stockholders' equity	80,754	34,316
Total liabilities and stock and stockholders' equity	$ 109,968	$ 54,867

Contact Information:
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ecavaleri@lyratx.com

LYRA THERAPEUTICS

Investor Presentation

March 2023

Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements, including statements regarding the company's clinical advancement and efficacy of LYR-210 and LYR-220 for the treatment of CRS and our expectations regarding the LYR-210 Phase 3 ENLIGHTEN program and LYR-220 Phase 2 BEACON program. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause the company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the fact that the company has incurred significant losses since inception and expects to incur losses for the foreseeable future; the company's need for additional funding, which may not be available; the company's limited operating history; the fact that the company has no approved products; the fact that the company's product candidates are in various stages of development and may not get approved or be approved for a narrower indication than expected; our the fact that the company may not be successful in its efforts to identify and successfully commercialize its product candidates; the fact that clinical trials required for the company's product candidates are expensive and time-consuming, and their outcome is uncertain; the fact that the FDA may not conclude that certain of the company's product candidates satisfy the requirements for the Section 505(b)(2) regulatory approval pathway; the company's inability to obtain required regulatory approvals; effects of recently enacted and future legislation; the possibility of system failures or security breaches; effects of significant competition; the fact that the successful commercialization of the company's product candidates will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and pricing policies; failure to achieve market acceptance; product liability lawsuits; the fact that the company must scale its in-house manufacturing capabilities or rely on third parties for the manufacture of materials for its research programs, pre-clinical studies and clinical trials; the company's reliance on third parties to conduct its preclinical studies and clinical trials; the company's inability to succeed in establishing and maintaining collaborative relationships; the company's reliance on certain suppliers critical to its production; failure to obtain and maintain or adequately protect the company's intellectual property rights; failure to retain key personnel or to recruit qualified personnel; difficulties in managing the company's growth; effects of natural disasters; the fact that the global pandemic caused by COVID-19 could adversely impact the company's business and operations, including the company's clinical trials; the fact that the price of the company's common stock may be volatile and fluctuate substantially; significant costs and required management time as a result of operating as a public company and any securities class action litigation. These and other important factors discussed under the caption "Risk Factors" in the company's Annual Report on Form 10-K filed with the SEC on March 29, 2023, and its other filings with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this presentation. Any such forward-looking statements represent management's estimates as of the date of this presentation. While the company may elect to update such forward-looking statements at some point in the future, it disclaims any obligation to do so, even if subsequent events cause its views to change.

This presentation also includes statistical and market data that we obtained from industry, publications and research, surveys and studies conducted by third parties or us. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. All of the market data used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data. The industry in which we operate is subject to a high degree of uncertainty, change and risk due to a variety of factors, which could cause results to differ materially from those expressed in the estimates made by the independent partners and by us.

Company overview

Clinical-stage biotechnology company developing innovative therapies for the localized treatment of chronic rhinosinusitis

- Proprietary drug-eluting implantable matrix designed to provide 6 months of continuous anti-inflammatory therapy
- Indication: Chronic rhinosinusitis (CRS), which affects 14M patients (US) and for which there is no approved therapeutic treatment
- Pivotal Phase 3 trials ongoing for lead candidate LYR-210 for CRS
- Patent protection through 2036

Lyra's proprietary drug-eluting matrix design

BIOCOMPATIBLE MESH SCAFFOLD

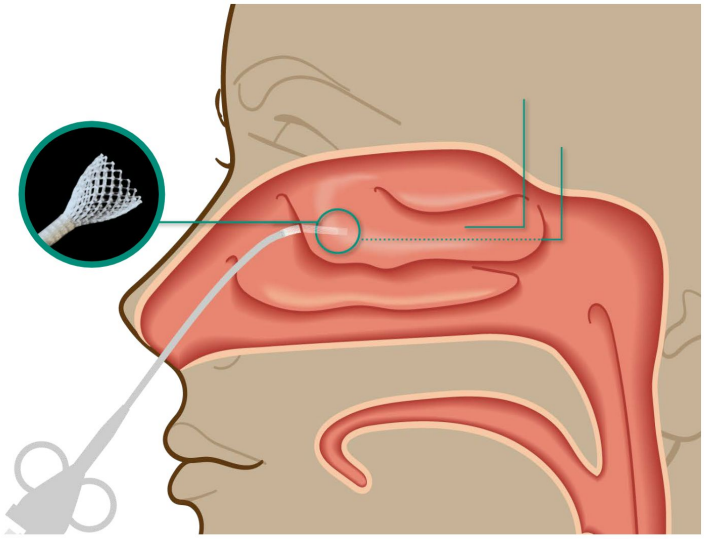
Maximizes surface area for drug release while maintaining underlying tissue function

ENGINEERED ELASTOMERIC MATRIX

Dynamically adapts to target anatomy

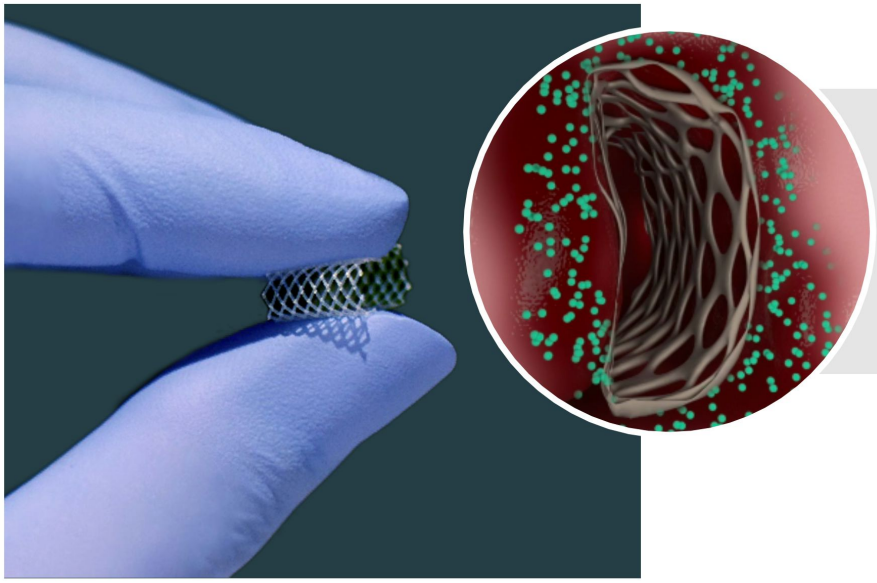
VERSATILE POLYMER-DRUG COMPLEX

Continuous drug release for long-term dosing



Lyra's proprietary drug-eluting matrix design (cont.)

Sustained targeted drug therapy



- Designed to deliver six months or more of continuous, local drug therapy with a single administration
- Shape memory keeps matrix in place

CRS development pipeline

LYR-210 and LYR-220: Designed to address the full spectrum of CRS patients

Candidate	CRS Patient Type	Phase 2	Phase 3
LYR-210 Long-acting Mometasone Furoate	Chronic Rhinosinusitis **Patients with Surgically-Naïve Anatomy** **ENLIGHTEN Phase 3 Program**		
LYR-220 Long-acting Mometasone Furoate	Chronic Rhinosinusitis **Patients with Post-Surgical Anatomy** **BEACON Phase 2 Trial**		

What is chronic rhinosinusitis (CRS)?

Chronic rhinosinusitis: The “Unrecognized Epidemic”[1]

CRS Cardinal Symptoms[1]

- Nasal obstruction and congestion
- Facial pain and pressure
- Nasal discharge
- Olfactory loss

United States

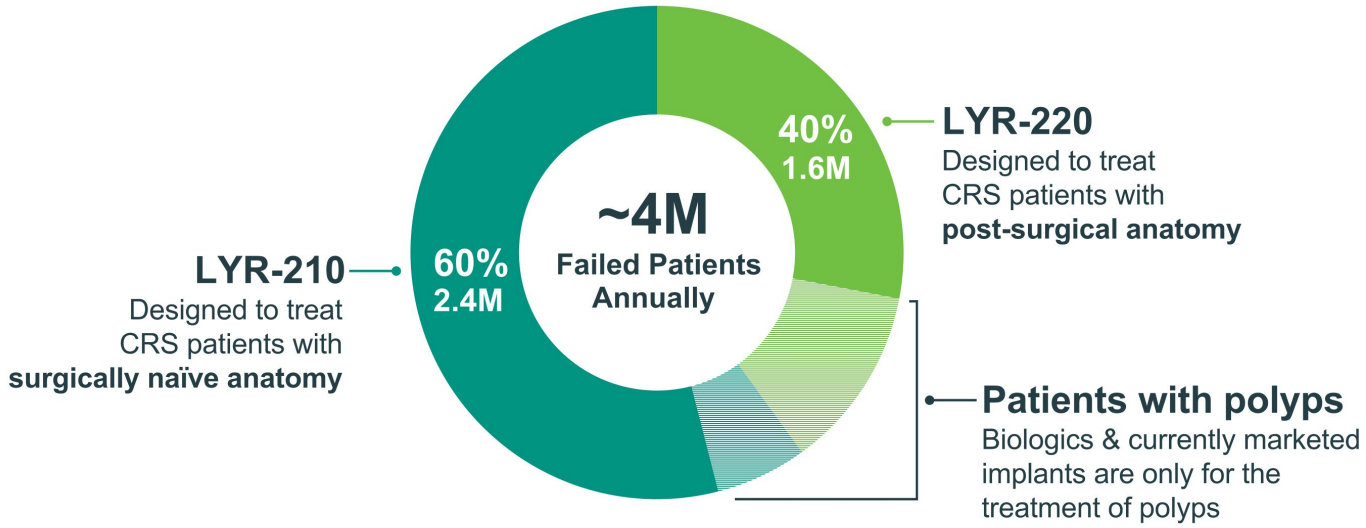
~14M CRS Patients[2]

~8M CRS Patients Treated by Physicians Annually[3]

~4M CRS Patients Fail Medical Management Annually[4]

1) Tan BK et al. Am J Respir Crit Care Med, 2013;188(11):1275–7; 2) Battacharrya. Ann Otol Rhinol Laryngol, 2011; Jul;120(7):423-7; 3) Jang et al. Otolaryngol Head Neck Surg, 2018; 4) Baguley et al. Int Forum Allergy Rhinol, 2014;4(7):525-32

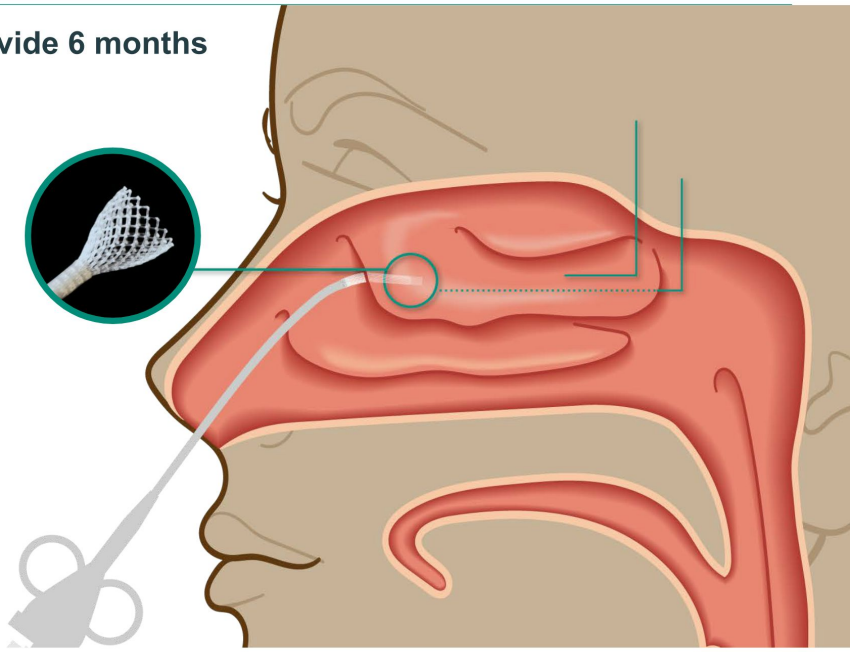
Developing solutions for the full range of CRS patients who have failed medical management



LYR-210: Designed to be the gold standard of CRS therapy

Only product candidate designed to provide 6 months of CRS therapy with a single treatment

- FDA-approved API/steroid: Mometasone furoate
- Designed to provide continuous anti-inflammatory therapy
- Administered nasally via a single-use applicator
- Brief, office-based procedure with topical anesthesia
- Designed to enhance patient comfort and avoid painful surgery
- Designed to be replaced every 6 months

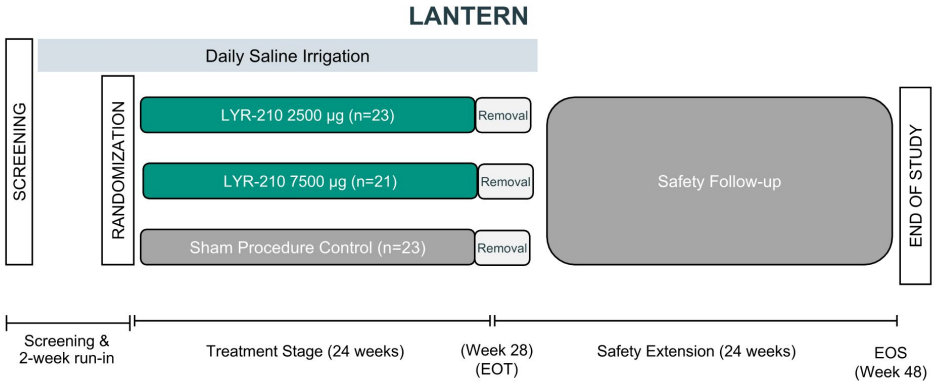


LYRA THERAPEUTICS

LANTERN: Phase 2 Clinical Trial of LYR-210 in CRS Patients

Study design:

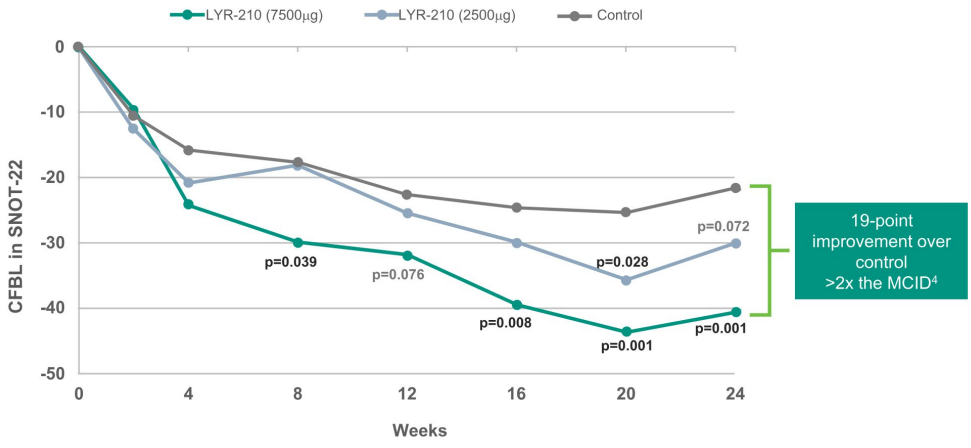
- Multicenter, randomized, blinded, controlled, dose-ranging trial
- Adult patients with CRS who failed previous medical management and have not undergone FESS
- Primary endpoint: Change from baseline in 4 cardinal symptoms composite score (4CS) at Week 4
- Secondary endpoints included SNOT-22, individual and composite cardinal symptom scores over 24 weeks, sinus MRI



LYR-210: LANTERN Phase 2 study[1] results

- LYR-210 achieved rapid and durable improvement in SNOT-22 score over 24 weeks
- Half of treated patients (7,500 μg) experienced a durable response six months post-LYR-210 removal as measured by 4CS[5] scores from Week 24
- No treatment-related SAEs observed

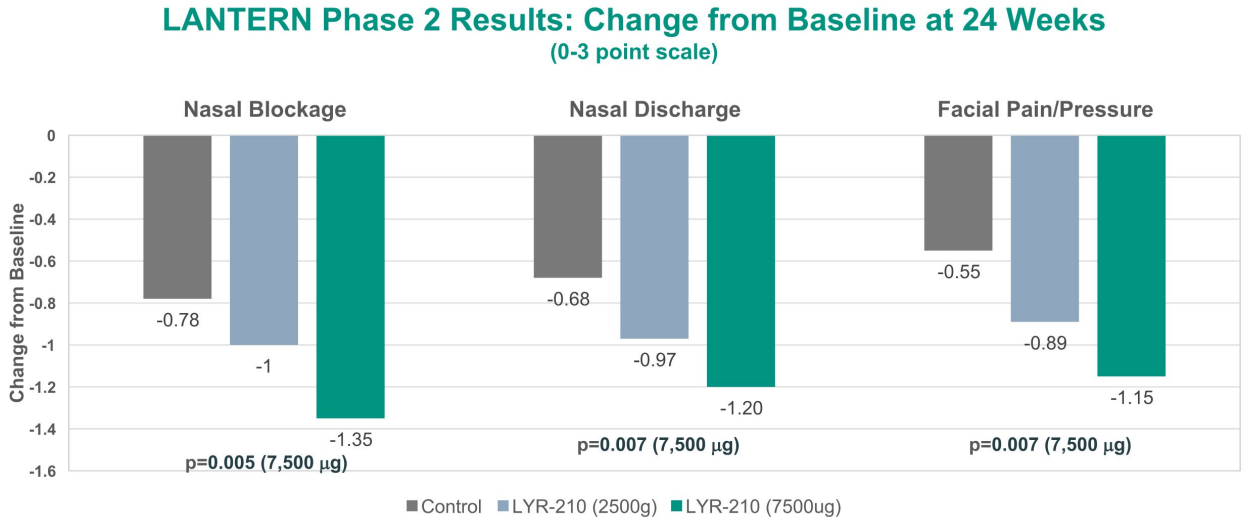
Improvement by SNOT-22[2,3]



Statistically Significant Improvement vs. Control at 8, 16, 20 and 24 wks

1) Cervin A, et al. Long-acting implantable corticosteroid matrix for chronic rhinosinusitis: Results of LANTERN Phase 2 randomized controlled study. Int Forum AllergyRhinol. 2021;1-13; 2) SinoNasal Outcome Test (SNOT-22) is a patient reported score from 0 – 110 based on symptoms; 3) Data represents the least square mean. Missing data and data post use of rescue medication was imputed by LOCF method; 4) Minimum clinically important difference; 5) Composite score of the 4 Cardinal Symptoms of CRS (nasal blockage, facial pain/pressure, nasal discharge (anterior/posterior) and loss of smell); Durable response = patients experiencing no worsening in 4CS scores from week 24 baseline throughout the post-treatment period. Worsened response = patients experiencing a worsening in 4CS scores from week 24 baseline (at ≥1 time points in the post-treatment period) and patients who required rescue treatment. These percentages of patient responses in the post-treatment period represent trends. Analyses are not powered for statistical significance.

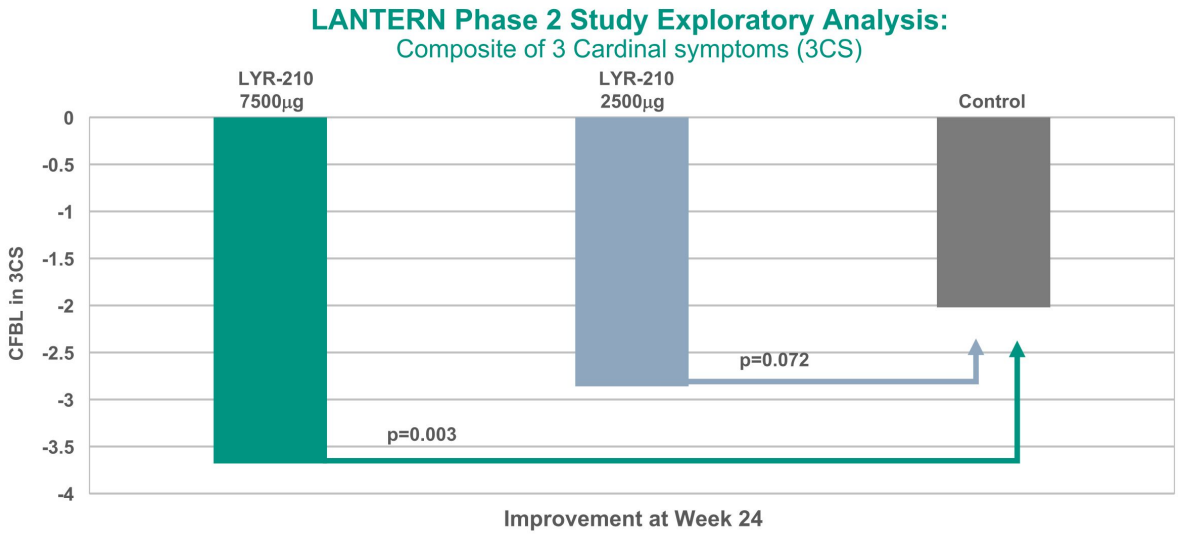
Improvement across three cardinal symptoms of CRS



Source: Cervin A, et al. Long-acting implantable corticosteroid matrix for chronic rhinosinusitis: Results of LANTERN Phase 2 randomized controlled study. Int Forum AllergyRhinol. 2021;1-13.

Robust effect in composite 3CS at Week 24[1,2]

3CS is primary endpoint for ENLIGHTEN Phase 3 studies



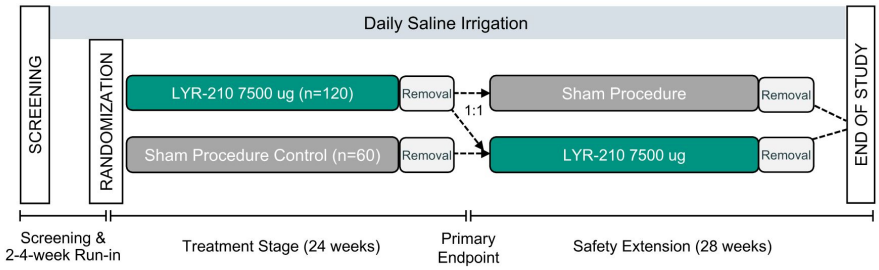
Source: Cervin A, et al. Long-acting implantable corticosteroid matrix for chronic rhinosinusitis: Results of LANTERN Phase2 randomized controlled study. Int Forum AllergyRhinol. 2021;1-13.
1) Mean change from baseline (CFBL) in the 7-day average score in the 3CS composite score (nasal blockage, facial pain/pressure, and nasal discharge (anterior/posterior); 2) Post-hoc analysis; data represent LSM. P<0.05 is considered statistically significant to control

LYRA THERAPEUTICS

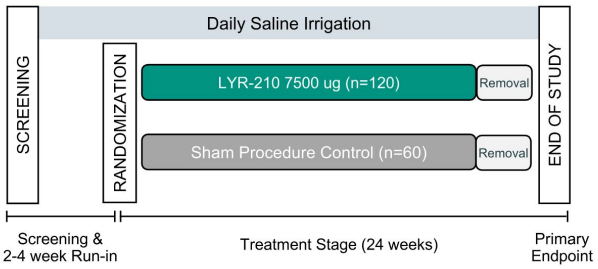
LYR-210 ENLIGHTEN Phase 3 program

- **2 studies of ~180 CRS patients each, without nasal polyps or with grade 1 nasal polyps, who have failed medical management**[3]
- **Primary Endpoint:** Change from baseline in 3CS Score at Week 24 in patients without nasal polyps
- **Key Secondary Endpoints** include individual cardinal symptoms, SNOT-22, CT sinus opacification

ENLIGHTEN I[1]



ENLIGHTEN II[2]

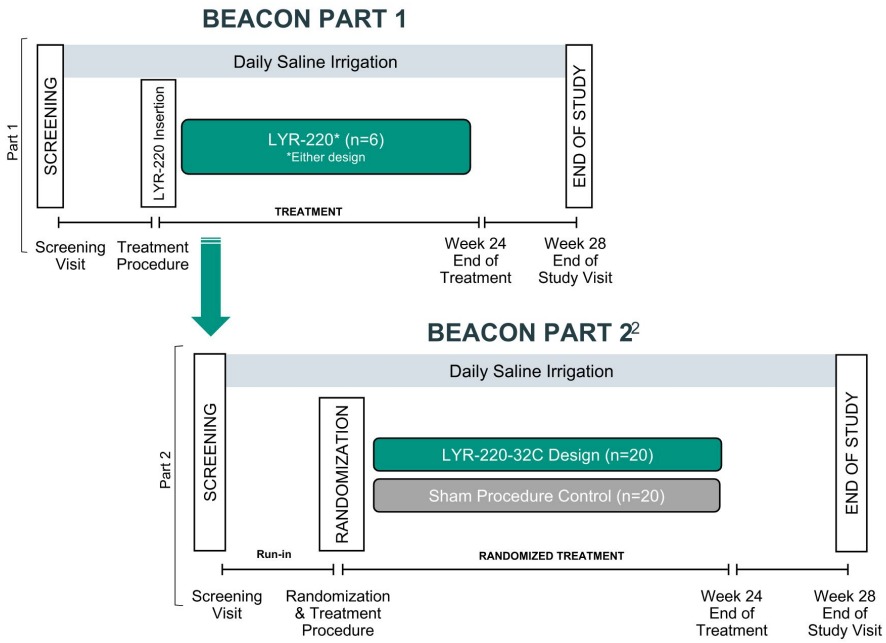


1) NCT05219968; 2) NCT05295459; 3) Limit of 30 patients with nasal polyps per study; patient population without polyps represents 90% of CRS patients. OR study population represents 95% of CRS patients

LYRA THERAPEUTICS

LYR-220 BEACON Phase 2 trial[1]

- **Conducted in CRS patients who have had a prior bilateral ethmoidectomy**
- **Part 1** – open label, to assess 2 LYR-220 matrix designs, including feasibility and optimization of placement in 6 patients
- **Part 2** – randomized, patient-blinded, sham-controlled to assess safety, tolerability, PK, and efficacy of LYR-220 in ~40 patients
- **Fully enrolled; topline data expected Q4 2023**



1) NCT05035654; 2) ≤10 patients with polyps will be enrolled in each treatment arm

LYRA products, if approved, are expected to align with current ENT practices

- Office-based procedure that ENTs are accustomed to performing
- Potential path for patients who are unwilling to undergo surgery
- Possible alternative before systemic interventions (e.g., biologics)
- Expected to fit well into ENT practice reimbursement models

Efficient go-to-market strategy

Targeted Patient & Physician Base

Highly Accessible Patients

1.4M failed CRS patients actively seek care from ENT annually[1]

Specialist Physicians

1,800 ENTs perform ~80% of CRS procedures[2]

Specialty Field Force

20-40 sales reps

3-5 medical science liaisons

1) OM1 Real World Data Cloud (OM1, Inc, Boston, MA, US), 2015 – 4/2019. Analysis 9/2019; 2) IQVIA In-Office Medical Claims Data, June 2021.

Anticipated milestones

LYR-210: ENLIGHTEN Phase 3 Program

- Mid-2023: Complete enrollment in ENLIGHTEN I
- Mid-2024: Topline pivotal data from ENLIGHTEN I
- 2H 2024: Complete enrollment in ENLIGHTEN II

LYR-220: BEACON Phase 2 Program

- ✓Early 2023: Complete enrollment
- Q4 2023: Topline data

Financial profile

- Cash and short-term investments of $97.9 million as of December 31, 2022
- 31,829,774 common shares outstanding as of March 1, 2023
- Trades on NASDAQ under the ticker symbol “LYRA”

LYRA THERAPEUTICS