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): June 15, 2017

SELECTA BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware	**001-37798**	**26-1622110**
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification No.)

480 Arsenal Way
Watertown, MA 02472
(Address of principal executive offices) (Zip Code)

(617) 923-1400
(Registrant's telephone number, include area code)

N/A
(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

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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 x

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. x

Item 7.01. Regulation FD Disclosure.

On June 15, 2017, Selecta Biosciences, Inc. (the "Company") issued a press release announcing additional data from the Company's ongoing Phase 2 company-sponsored trial, which is assessing single ascending dose safety, pharmacokinetic and pharmacodynamics of SEL-212 in patients with elevated uric acid levels.

The full text of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K. In connection with the issuance of the press release, the Company is holding a public conference call and webcast on June 15, 2017, at 8:30 a.m. ET, during which the Company will provide the investor presentation attached as Exhibit 99.2 to this Current Report on Form 8-K. The Company undertakes no obligation to update, supplement or amend the materials attached hereto as Exhibit 99.2.

The information furnished under this Item 7.01 (including Exhibits 99.1 and 99.2 attached hereto) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into 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 June 15, 2017, the Company issued a press release announcing additional data from the Company's ongoing Phase 2 company-sponsored trial, which is assessing single ascending dose safety, pharmacokinetic and pharmacodynamics of SEL-212 in patients with elevated uric acid levels.

Key observations and findings based upon the clinical data generated through June 12, 2017 from the 60 patients currently enrolled in this open-label, dose ranging Phase 2 trial include:

- **Mitigated anti-drug antibodies (ADAs) after repeat monthly administrations of SEL-212 -** The prevention of ADAs in a dose-dependent manner resulted in a durable control of serum uric acid (sUA) levels (defined as sUA <6 mg/dl). The clinical data demonstrate a correlation between the prevention of ADAs and the maintenance of pegsiticase activity and serum uric acid control.

- **Demonstrated induction of immune tolerance -** A majority of patients in the minimum effective dose group maintained sUA control following three monthly injections of SEL-212 and two monthly "challenge" injections of pegsiticase alone. Maintenance of sUA in the challenge portion of the trial provides evidence at this stage that the use of SVP-Rapamycin is enabling immune tolerance, meaning a prevention of ADAs to pegsiticase, which is typically immunogenic when administered alone.

- **Reduced rate of gout flares with SEL-212 -** In the control cohorts receiving pegsiticase alone, within the first month of treatment, 50% of patients reported experiencing a gout flare, which is a sudden and severe attack of pain, inflammation and tenderness of the joints. By comparison, only 15% of patients receiving SEL-212 reported a gout flare in the first month of treatment, with reports declining further in subsequent months. These data also appear to be in contrast with the increased incidence of flares reported in clinical trials involving other urate lowering therapies.

- **Identified minimum effective dose of SEL-212 -** A key objective of the Phase 2 trial was to determine a minimum effective monthly dose of the two components of SEL-212 (i.e. pegsiticase and SVP-Rapamycin) through an ascending dose matrix design. A majority of the initial patients dosed with 0.4 mg/kg of pegsiticase in combination with 0.08 mg/kg of SVP-Rapamycin maintained sUA control beyond five treatments. As a result, the Company has determined this to be a minimum monthly effective dose of SEL-212. Additional patients are now being added to this cohort, and higher dose levels of SVP-Rapamycin are being tested to further determine the dose regimens that may be taken forward into Phase 3.

- **SEL-212 generally well tolerated** - Consistent with the expected reduction in immunogenicity of pegsiticase when SVP-Rapamycin doses increase, SEL-212 has been generally well tolerated at clinically active doses. There have been a total of eight serious adverse events (SAEs) reported in the trial through June 12, 2017. Seven were infusion reactions, four of which occurred in the cohorts receiving pegsiticase alone or the lowest dose of SVP-Rapamycin and two of which were due to dosing errors. One additional SAE, cholecystitis, was determined to not be related to the study drug. All of the SAEs were successfully treated and resolved without further issues.

Following an End of Phase 2 Meeting with the U.S. Food and Drug Administration, the Company expects to initiate its Phase 3 program in 2018.

Forward-Looking Statements Disclaimer

This Current Report on Form 8-K (the "Current Report") contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this Current Report that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding our ability to determine appropriate SEL-212 dose regimens for our Phase 3 program and our expectations surrounding the initiation of our Phase 3 program. These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that 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, including, but not limited to, the following: the uncertainties inherent in the initiation, completion and cost of clinical trials including their uncertain outcomes; the unproven approach of our SVP technology; undesirable side effects of our product candidates; our reliance on third parties to manufacture our product candidates and to conduct our clinical trials; our inability to maintain our existing or future collaborations or licenses; our inability to protect our proprietary technology and intellectual property; potential delays in regulatory approvals; and availability of funding sufficient for our foreseeable and unforeseeable operating expenses and capital expenditure requirements. These and other important factors discussed under the caption "Risk Factors" in our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission, or SEC, on May 11, 2017, and our other reports filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this Current Report. Any such forward-looking statements represent management's estimates as of the date of this Current Report. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this Current Report.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release issued on June 15, 2017
99.2	Corporate slide presentation of Selecta Biosciences, Inc. dated June 15, 2017

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.

SELECTA BIOSCIENCES, INC.

Date: June 15, 2017

By: /s/ Werner Cautreels, Ph.D.

Werner Cautreels, Ph.D.

President and Chief Executive Officer

EXHIBIT INDEX

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Exhibit 99.1

Selecta Biosciences Reports Data from Ongoing Phase 2 Trial of Lead Candidate, SEL-212, in Development for Chronic Severe Gout

Watertown, Mass., June 15, 2017 - Selecta Biosciences, Inc. (NASDAQ: SELB), a clinical-stage biopharmaceutical company focused on unlocking the full potential of biologic therapies by avoiding unwanted immune responses, today announced data from its ongoing Phase 2 trial of SEL-212 (SVP-Rapamycin in combination with the uricase enzyme pegsiticase), which is being developed for patients with chronic severe gout.

Key observations and findings based upon the clinical data generated through June 12, 2017 from the 60 patients currently enrolled in this open-label, dose ranging Phase 2 trial include:

- **Mitigated anti-drug antibodies (ADAs) after repeat monthly administrations of SEL-212** - The prevention of ADAs in a dose-dependent manner resulted in durable control of serum uric acid (sUA) levels (defined as sUA <6 mg/dl). The clinical data demonstrate a correlation between the prevention of ADAs and the maintenance of pegsiticase activity and serum uric acid control.

- **Demonstrated induction of immune tolerance** - A majority of patients in the minimum effective dose group maintained sUA control following three monthly injections of SEL-212 and two monthly "challenge" injections of pegsiticase alone. Maintenance of sUA in the challenge portion of the trial provides evidence at this stage that the use of SVP-Rapamycin is enabling immune tolerance, meaning a prevention of ADAs to pegsiticase, which is typically immunogenic when administered alone.

- **Reduced rate of gout flares with SEL-212**- In the control cohorts receiving pegsiticase alone, within the first month of treatment, 50% of patients reported experiencing a gout flare, which is a sudden and severe attack of pain, inflammation and tenderness of the joints. By comparison, only 15% of patients receiving SEL-212 reported a gout flare in the first month of treatment, with reports declining further in subsequent months. These data also appear to be in contrast with the increased incidence of flares reported in clinical trials involving other urate lowering therapies.

- **Identified minimum effective dose of SEL-212** - A key objective of the Phase 2 trial was to determine a minimum effective monthly dose of the two components of SEL-212 (i.e. pegsiticase and SVP-Rapamycin) through an ascending dose matrix design. A majority of the initial patients dosed with 0.4 mg/kg of pegsiticase in combination with 0.08 mg/kg of SVP-Rapamycin maintained sUA control beyond five treatments. As a result, the company has determined this to be a minimum monthly effective dose of SEL-212. Additional patients are now being added to this cohort, and higher dose levels of SVP-Rapamycin are being tested to further determine the dose regimens that may be taken forward into Phase 3.

- **SEL-212 generally well tolerated** - Consistent with the expected reduction in immunogenicity of pegsiticase when SVP-Rapamycin doses increase, SEL-212 has been generally well tolerated at clinically active doses. There have been a total of eight serious adverse events (SAEs) reported in the trial through June 12, 2017. Seven were infusion reactions, four of which occurred in the cohorts receiving pegsiticase alone or the lowest dose of SVP-Rapamycin and two of which were

due to dosing errors. One additional SAE, cholecystitis, was determined to not be related to the study drug. All of the SAEs were successfully treated and resolved without further issues.

“The implications of these trial data are profound for both SEL-212 and for the development of Selecta’s immune tolerance platform,” said Werner Cautreels, Ph.D., CEO and Chairman of Selecta. “First and foremost, the clinical data demonstrate SEL-212’s potential to address substantial unmet needs for patients with chronic severe gout, a debilitating disease that has been associated with both increased morbidity and mortality. We believe that a reduction of serum uric acid levels to near zero during treatment, a reduction in the incidence of flares and the convenience of safe monthly dosing with SEL-212 would prove to be a compelling treatment option. Leveraging these data, we are beginning to prepare for a Phase 3 program that we plan to initiate in 2018 following further dialogue with the U.S. Food and Drug Administration. Importantly, we also believe that our technology has shown for the first time in a clinical setting the potential to induce tolerance to a highly immunogenic biologic, which helps to inform the continued development of our other proprietary novel biologic programs.”

These and other data are being reported today at the Annual European Congress of Rheumatology (EULAR 2017) in Madrid, Spain and at the Federation of Clinical Immunology Societies’ Annual Meeting (FOCIS 2017) in Chicago, IL. The company also has posted a presentation to its website entitled “Selecta June 2017 Phase 2 Trial Presentation” that can be accessed by clicking here.

Conference Call Reminder
At 8:30 a.m. ET today, Selecta will host a conference call to discuss the data. Those interested can access a live and archived webcast of this call via the Investors & Media section of the company’s website, http://selectabio.com. Individuals may also participate in the live call via telephone by dialing (877) 270-2148 (domestic) or (412) 902-6510 (international) and may access a teleconference replay for one week by dialing (877) 344-7529 (domestic) or (412) 317-0088 (international) and using confirmation code 10108095.

About Chronic Severe Gout, SEL-212 and Selecta’s Ongoing Phase 2 Trial
According to market research, more than 500,000 gout patients in the U.S. are treated by rheumatologists and approximately 160,000 of these patients have chronic severe gout. These patients typically have an inflammatory build-up of uric acid deposits called tophi in their joints and tissue that causes pain, inflammation of joints and debilitating flares. If untreated, these deposits also can potentially exacerbate kidney and cardiovascular disease and increase morbidity. In fact, a study published in 2016 involving more than 600 patients diagnosed with tophaceous gout showed a 60% increased risk of mortality when compared to more than 2,800 patients without tophi.[1]

Published data show that uricase enzymes have the unique ability to rapidly eliminate uric acid crystal deposits and tophi in patients with chronic severe gout.[2] However, since these are biologic enzymes that are recognized as “foreign” by the immune system, anti-drug antibodies (ADAs) are induced in most patients early in their treatment, compromising efficacy and safety as well as preventing further administrations.

[1] Vincent Z et al, Predictors of Mortality in People with Recent Onset of Gout: A Prospective Observational Study, ACR, Sept. 2016

[2] Araujo E, Bayat S, Petsch C, Matthias E, Faustini F, Kleyer A, Hueber A, Cavallaro A, Lell M, Dalbeth N, et al. June 2015. Tophus resolution with pegloticase: a prospective dual-energy CT study. Rheumatic & Musculoskeletal Diseases.

SEL-212 (SVP-Rapamycin in combination with the uricase enzyme pegsiticase) is designed to be the first monthly uricase treatment and the first uricase treatment that avoids immunogenicity. It is intended to remove the patient's uric acid burden through a short induction treatment cycle, thereby improving acute symptoms such as pain, inflammation of joints and debilitating flares. Selecta also envisions that additional SEL-212 treatment cycles could be re-administered if severe gout symptoms were to recur.

In the fourth quarter of 2016, Selecta began enrolling patients with symptomatic gout and elevated serum uric acid levels in an open-label, multiple ascending dose Phase 2 clinical trial of SEL-212. The primary and secondary endpoints for this trial include safety, tolerability, pharmacokinetics, reduction of serum uric acid levels and reduction of ADA levels. Data also are being collected regarding flares and other patient-related observations. Patients are being enrolled in multiple ascending dose cohorts to enable the identification of the optimal dose ratio of SVP-Rapamycin and pegsiticase, the minimal effective dose level of SEL-212 for repeat monthly administration, and the dose regimen to take forward into Phase 3. More information about the trial (NCT02959918) is available at www.clinicaltrials.gov.

About Selecta Biosciences, Inc.
Selecta Biosciences, Inc. is a clinical-stage biopharmaceutical company that is focused on unlocking the full potential of biologic therapies by avoiding unwanted immune responses. Selecta plans to combine its tolerogenic Synthetic Vaccine Particles (SVP™) to a range of biologics for rare and serious diseases that require new treatment options. The company's current proprietary pipeline includes SVP-enabled enzyme, oncology and gene therapies. SEL-212, the company's lead candidate in Phase 2, is being developed to treat severe gout patients and resolve their debilitating symptoms, including flares and gouty arthritis. Selecta's clinical oncology candidate, LMB-100, is in a Phase 1 program targeting pancreatic cancer and mesothelioma. Its two proprietary gene therapy product candidates are being developed for rare inborn errors of metabolism and have the potential to enable repeat administration. The use of SVP is also being explored in the development of vaccines and treatments for allergies and autoimmune diseases. Selecta is based in Watertown, Massachusetts. For more information, please visit http://selectabio.com and follow @SelectaBio on Twitter.

Forward-Looking Statements
Any statements in this press release about the future expectations, plans and prospects of Selecta Biosciences, Inc. ("the company"), including without limitation, the ability of SEL-212 to avoid unwanted immune responses, the ability of SVP-Rapamycin to induce immune tolerance against pegsiticase, the ability of SEL-212 to improve acute symptoms during a short induction cycle, the ability of SEL-212 to be re-administered if severe gout symptoms recur, whether the company will determine an appropriate dose of SEL-212 for a Phase 3, whether the company will advance to a Phase 3 for SEL-212 at all, whether the Phase 2 clinical data of SEL-212 demonstrate the potential of SEL-212 to address a substantial unmet need for gout patients, the company's ability to unlock the full potential of biologic therapies, the company's plan to apply its SVP platform to a range of biologics for rare and serious diseases, the potential treatment applications for products utilizing the SVP platform in areas such as enzyme therapy, gene therapy, oncology therapy, vaccines and treatments for allergies and autoimmune diseases, the potential of SEL-212 to treat severe gout patients and resolve their debilitating symptoms, the potential of the company's two gene therapy product candidates to enable repeat administration, and other statements containing the words "anticipate," "believe," "continue," "could," "estimate," "expect," "hypothesize," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including, but not limited to, the following: the uncertainties inherent in the initiation, completion and cost of clinical trials including their uncertain outcomes, the unproven approach of the company's SVP technology, undesirable side effects of the company's product candidates, its reliance on third parties to manufacture its product candidates and to conduct its clinical trials, the company's inability to maintain its existing or future collaborations, licenses or contractual relationships, its inability to protect its proprietary technology and

intellectual property, potential delays in regulatory approvals, the availability of funding sufficient for its foreseeable and unforeseeable operating expenses and capital expenditure requirements, substantial fluctuation in the price of its common stock, a significant portion of the company's total outstanding shares have recently become eligible to be sold into the market, and other important factors discussed in the "Risk Factors" section of the company's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission, or SEC, on May 11, 2017, and in other filings that the company makes with the SEC. In addition, any forward-looking statements included in this press release represent the company's views only as of the date of its publication and should not be relied upon as representing its views as of any subsequent date. The company specifically disclaims any obligation to update any forward-looking statements included in this press release.

Contact Information:
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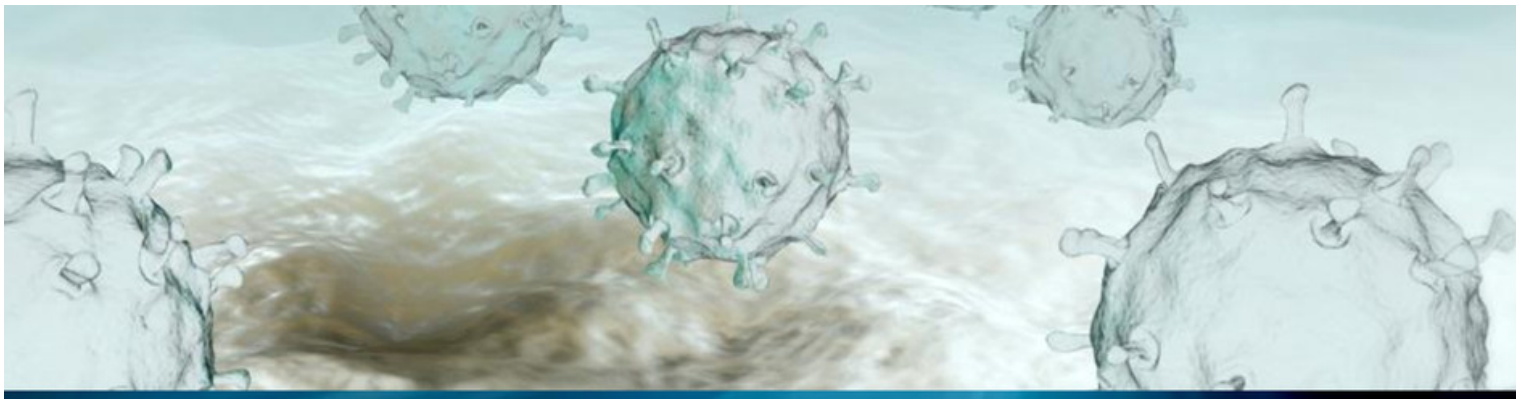
jfredette@selectabio.com



June 2017 Phase 2 Trial Presentation

SELECTA Biosciences

June 15, 2017

Safe Harbor / Disclaimer

Any statements in this presentation about the future expectations, plans and prospects of Selecta Biosciences, Inc. ("the company"), including without limitation, the progress of the Phase 1/2 clinical program of SEL-212, the potential of SEL-212 to treat severe gout patients and resolve their debilitating symptoms, the ability of SEL-212 to avoid unwanted immune responses, the ability of SVP-Rapamycin to induce immune tolerance against pegsiticase, the ability of SEL-212 to improve acute symptoms during a short induction cycle, the ability of SEL-212 to be re-administered if severe gout symptoms recur, whether the company will determine an appropriate dose of SEL-212 for a Phase 3, whether the company will advance to a Phase 3 for SEL-212 at all, whether the Phase 2 clinical data of SEL-212 demonstrate the potential of SEL-212 to address a *substantial unmet need for gout patients, the ability of the company's SVP platform, including SVP*-Rapamycin, to mitigate immune response and create better therapeutic outcomes, the potential treatment applications for products utilizing the SVP platform in areas such as enzyme therapy, gene therapy, oncology therapy, vaccines and treatments for allergies and *autoimmune diseases and other statements containing the words "anticipate," "believe," "continue," "could," "estimate," "expect," "hypothesize," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would," and similar* expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including, but not limited to, the following: the uncertainties inherent in the initiation, completion and cost of clinical trials including their uncertain outcomes, the availability and timing of data from ongoing and future clinical trials and the results of such trials, whether preliminary results from a particular clinical trial will be predictive of the final results of that trial or whether results of early clinical trials will be indicative of the results of later clinical trials, the unproven approach of the *company's SVP technology, potential delays in enrollment of patients, undesirable side effects of the company's product* candidates, its reliance on third parties to manufacture its product candidates and to conduct its clinical trials, the compa*ny's inability to maintain its existing or future collaborations or licenses, and other important factors discussed in the "Risk F*actors" *section of the company's Quarterly Report on Form 10*-Q filed with the Securities and Exchange Commission, or SEC, on May 11, 2017, and in other filings that the company makes with the SEC. In addition, any forward-looking statements included in *this presentation represent the company's views only as of the date of its publication and should not be relied upon as* representing its views as of any subsequent date. The company specifically disclaims any obligation to update any forward-looking statements included in this presentation.

SELECTA Biosciences


SEL-212 for Chronic Severe Gout
SELECTA

Clinical Objectives of SEL-212 Program

Phase 1a

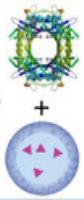
Clinicaltrials.gov NCT02464605

- n = 22
- Single ascending dose of pegsiticase
- Hyperuricemic patients

✓ Define effective monthly dose of pegsiticase

✓ Demonstrate rapid formation and kinetics of ADAs

Phase 1b



Clinicaltrials.gov NCT02648269

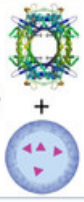
- n = 63
- Single ascending dose of SEL-212
- Hyperuricemic patients

Demonstrate that SEL 212:

✓Mitigates ADAs

✓Enables prolonged control of uric acid for >30 days

Phase 2



Clinicaltrials.gov NCT02959918

- n = 60
- 3 monthly doses of SEL-212 + 2 monthly doses of pegsiticase alone
- Symptomatic & hyperuricemic patients

Demonstrate SEL-212's safety, tolerability and ability to reduce serum uric acid after multiple doses

Nearly 100 patients now dosed with SEL-212

SELECTA Biosciences

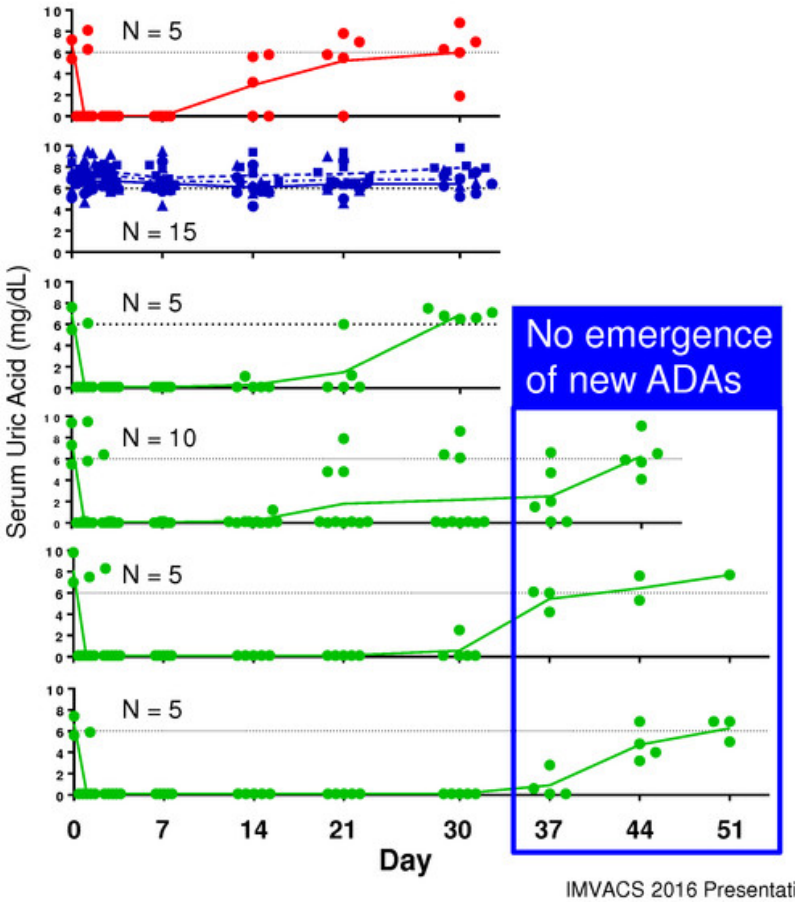
Phase 1b Demonstrates SEL-212's Clinical Activity for ≥30 Days

0.4 mg/ kg Pegsiticase only

0.03, 0.1, 0.3 mg/kg SVP-Rapamycin only

+

- 0.03 mg/kg SVP-Rapamycin 0.4 mg/kg Pegsiticase
- 0.10 mg/kg SVP-Rapamycin 0.4 mg/kg Pegsiticase
- 0.15 mg/kg SVP-Rapamycin 0.4 mg/kg Pegsiticase
- 0.30 mg/kg SVP-Rapamycin 0.4 mg/kg Pegsiticase



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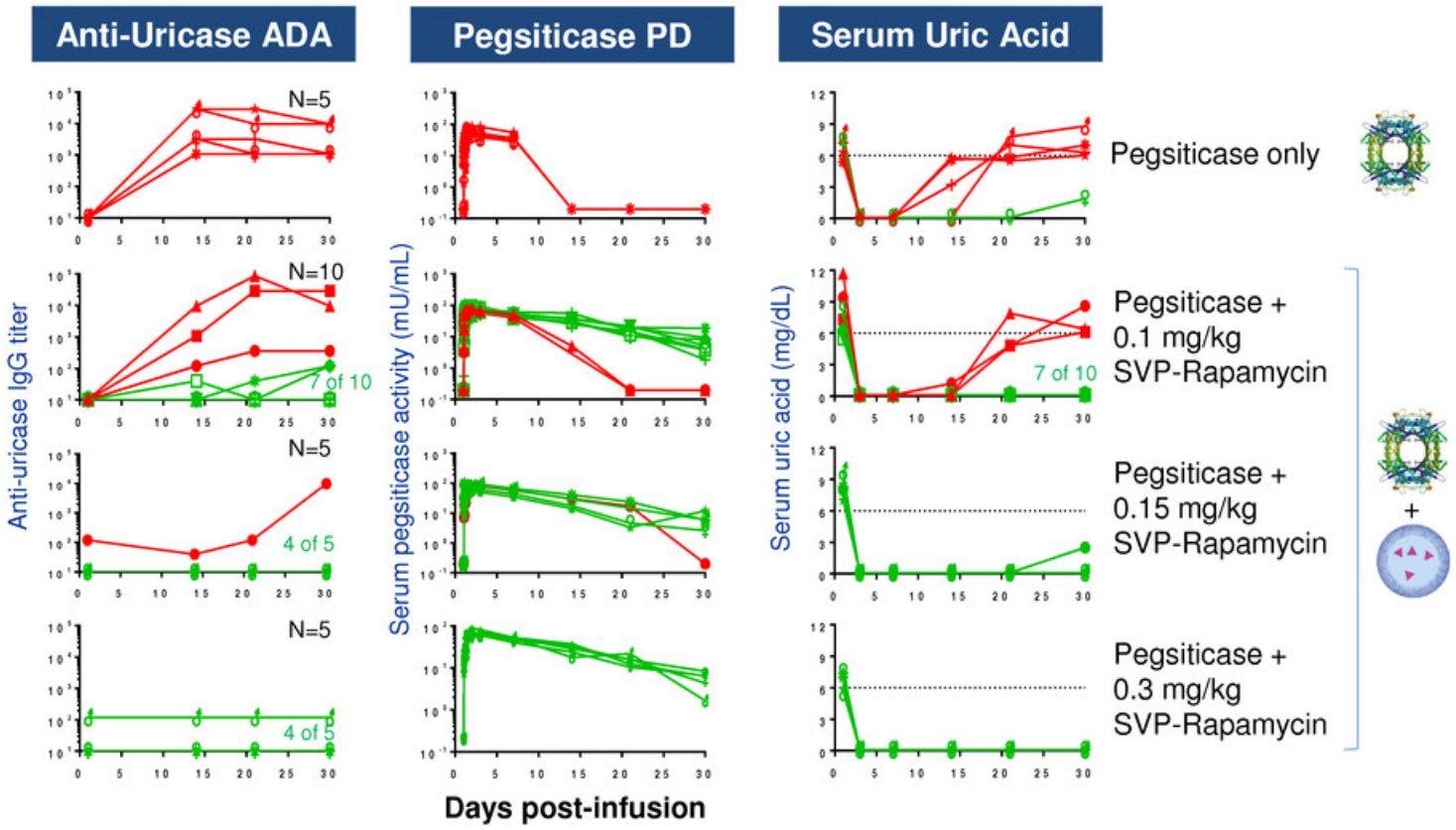
IMVACS 2016 Presentation
Clinicaltrials.gov NCT02648269

Phase 1b Trial Shows Correlation Between ADA Titers, Pegsitacase Activity and sUA



SELECTA Biosciences

Clinicaltrials.gov NCT02648269

Phase 2 Trial Overview

Enrollment Criteria	• Patients with symptomatic gout and serum uric acid levels >6 mg/dL
Primary/Secondary Endpoints	• Safety, tolerability and pharmacokinetics of multiple doses of SEL-212 and pegsiticase alone • Reduction of serum uric acid levels • Reduction of ADA levels
Design	• Multiple ascending dose cohorts
Dosing	• Control cohorts: pegsiticase alone every 28 days for up to five doses • All other cohorts: SEL-212 every 28 days for three doses followed by two doses of pegsiticase alone
Stopping Rules	• Dosing stopped upon loss of sUA control at Days 21 after a dose
Trial Completion	• Expected by the end of 2017
As of June 12	• 60 patients dosed at 11 active U.S. clinical sites

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Clinicaltrials.gov NCT02959918

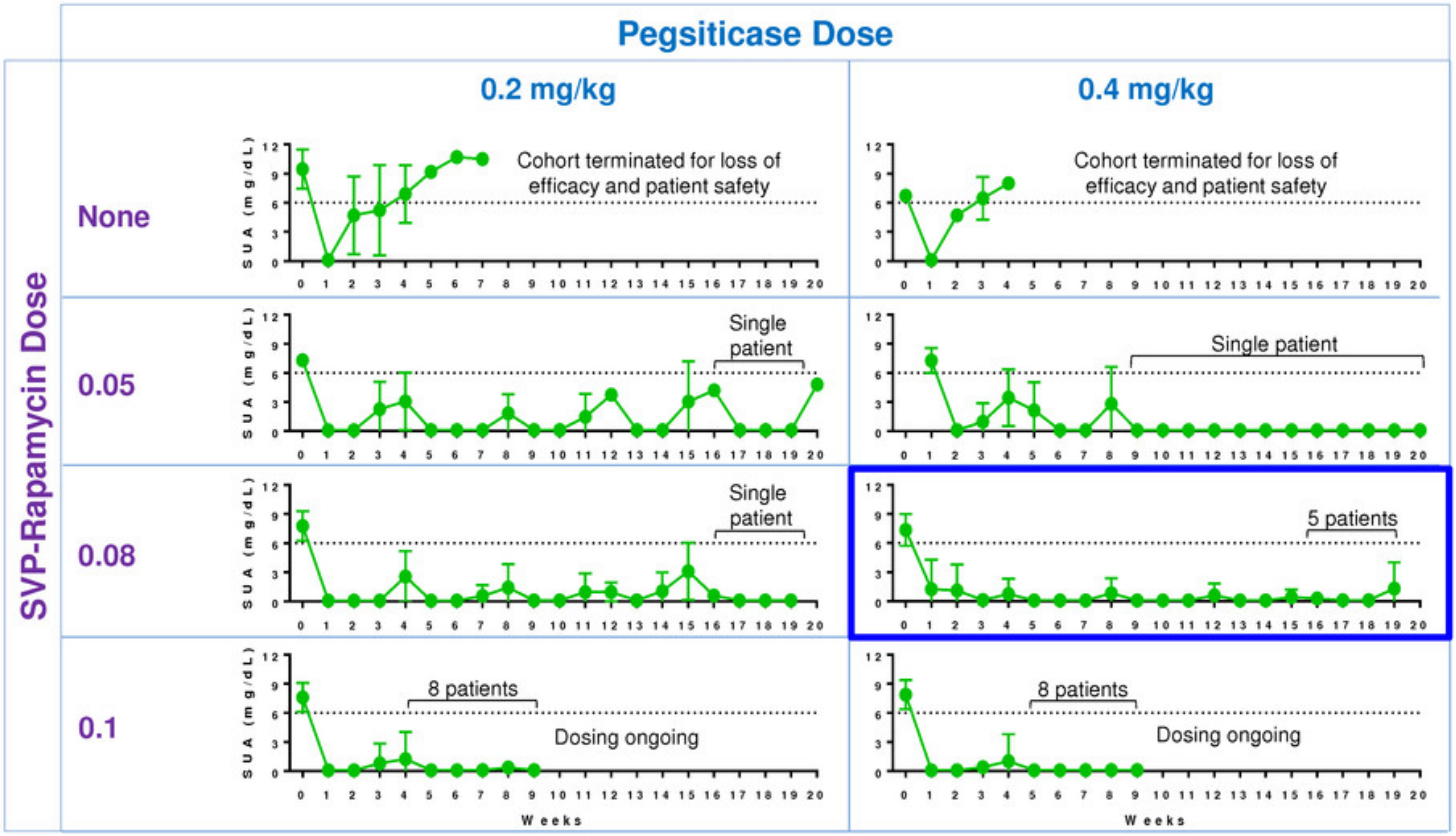
Status of Phase 2 Trial Cohorts

Cohort	Treatment Weeks 0, 4, 8		Treatment Weeks 12 + 16	Status
	Pegsiticase	SVP-Rapamycin	Pegsiticase	
1	0.2 mg/kg	None	0.2 mg/kg	Enrollment terminated
2	0.4 mg/kg	None	0.4 mg/kg	Enrollment terminated
3	0.2 mg/kg	0.05 mg/kg	0.2 mg/kg	Dosing completed
4	0.4 mg/kg	0.05 mg/kg	0.4 mg/kg	Dosing completed
5	0.2 mg/kg	0.08 mg/kg	0.2 mg/kg	Dosing completed
6	0.4 mg/kg	0.08 mg/kg	0.4 mg/kg	Ongoing
7	0.2 mg/kg	0.1 mg/kg	0.2 mg/kg	Ongoing
8	0.4 mg/kg	0.1 mg/kg	0.4 mg/kg	Ongoing
9+	Under design			Planned

SELECTA Biosciences

Clinicaltrials.gov NCT02959918

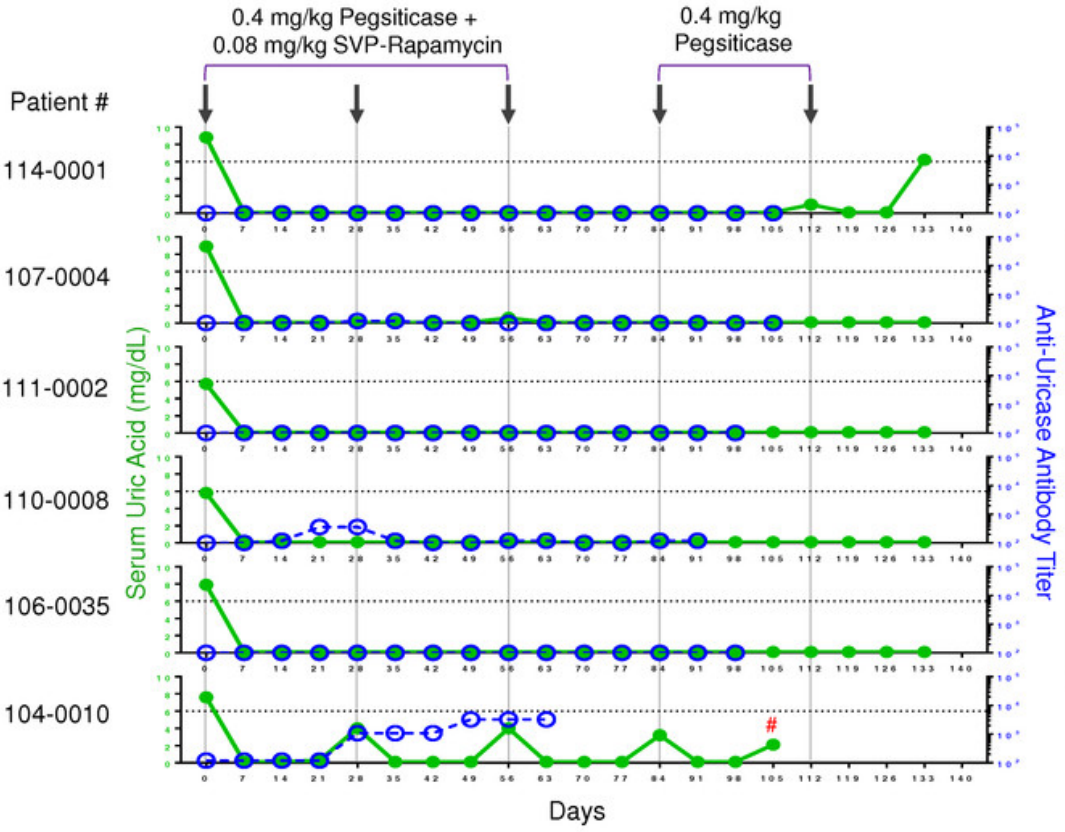
Minimal Effective Dose of SEL-212 Now Defined



SELECTA Biosciences

Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

Minimal Effective Dose of SEL-212



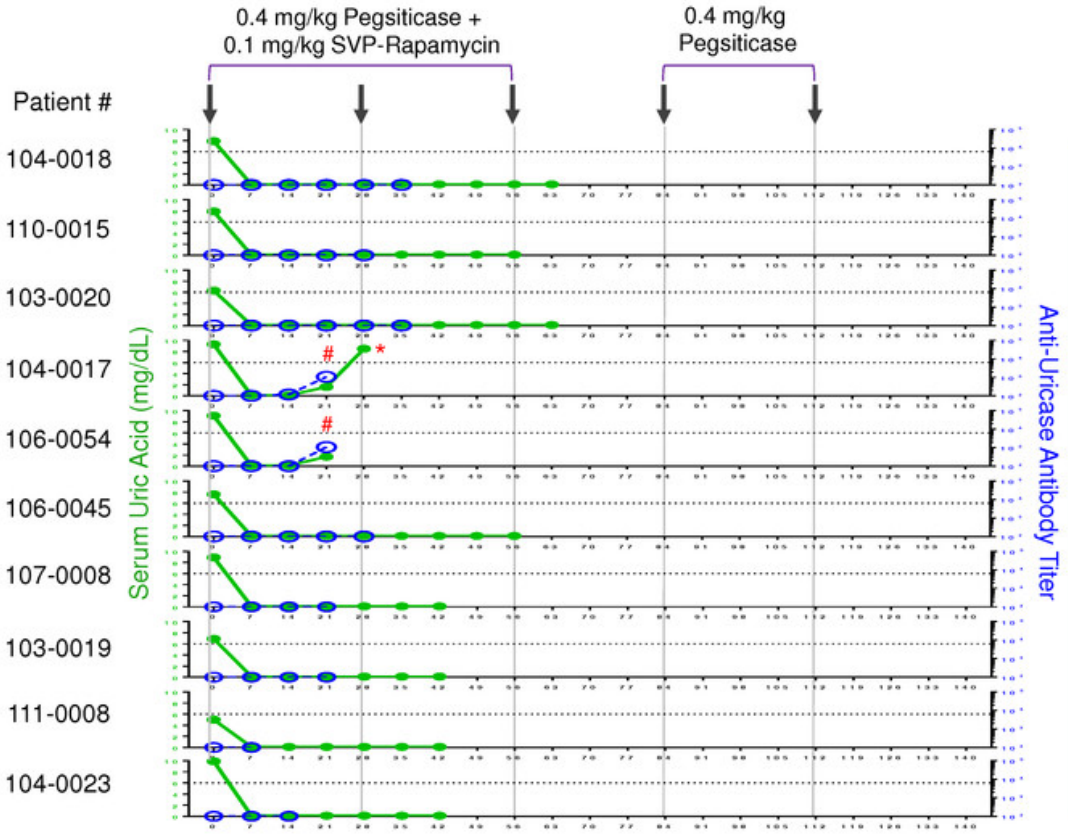
- Sustained reduction of sUA after two injections of pegsiticase alone suggests induction of immune tolerance
- Cohort being expanded to 10 evaluable patients

SELECTA Biosciences

Stopping rules met (sUA levels >1 mg/dL at 21 days after dosing)

Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

Higher Dose Cohort: 0.4 mg/kg of Pegsiticase + 0.1 mg/kg of SVP-Rapamycin



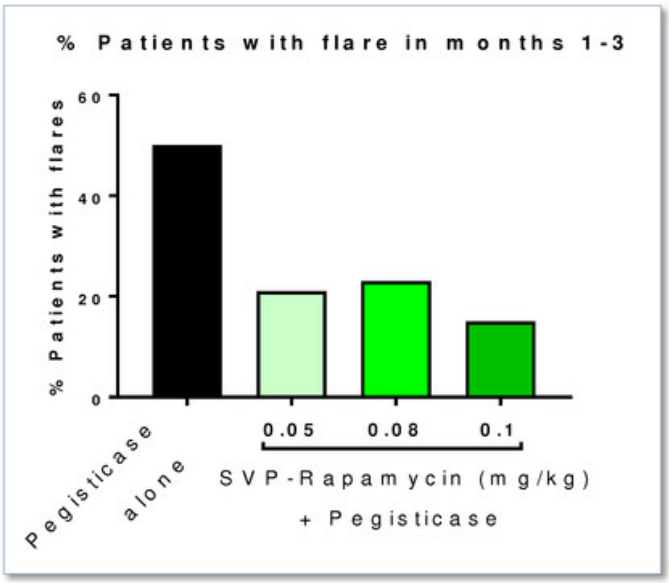
- sUA remains controlled in a majority of patients following repeat doses
- Two patients met stopping rules
- One of these patients was inadvertently re-dosed; experienced an infusion reaction and fully recovered

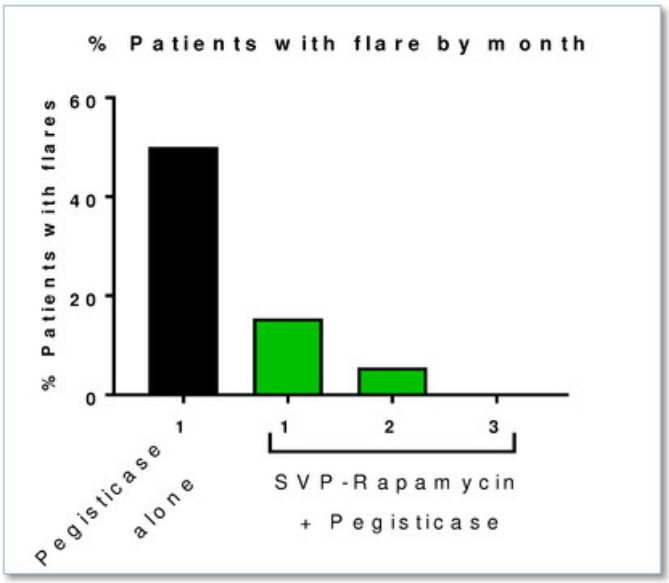
SELECTA Biosciences

\# Stopping rules met * SAE (infusion reaction) due to protocol deviation

Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

Results to Date Suggest Reduction in Flare Frequency During SEL-212 Therapy





- Urate lowering therapies typically increase the incidence of flares at the beginning of therapy
- SEL-212 lowers flares compared to pegsiticase alone

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Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

Phase 2 Safety Overview

- SEL-212 has been generally well tolerated at clinically active doses following repeated administrations
- SAEs reported to date in the trial:
  - Seven infusion reactions, four of which were in cohorts receiving pegsiticase alone or pegsiticase in combination with the lowest dose of SVP-Rapamycin and two of which were due to protocol deviations related to dosing errors
  - One was for a patient who experienced cholecystitis (inflammation of gall bladder caused by impacted gall stones), which was determined not to be related to study drug
- All SAEs were successfully treated and resolved without further issues

Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

Phase 2 Adverse Events

Cohort	Entire Study	1	2	3	4	5	6	7	8
N(%)	60	3	3	9	10	6	7	10	10
≥ 1TEAE	49(81.7)	2	2	9	8	5	5	3	6
≥ SAE	8	1	1	2	0	0	1*	1#, 1	1*
Death	0	0	0	0	0	0	0	0	0
Discontinuation due to TEAE	8	1	1	2	0	0	1	2	1
Specific TEAEs									
Infusion reaction	8(13.3)	1	1	2	0	0	1*, 1	1	1*
Gout flare	13(21.7)	3	0	2	2	1	2	1	2
Hyperglycemia[1]	9(15)	0	0	2	0	3	2	1	1
Hypertriglyceridemia[1]	4(6.7)	0	0	1	0	2	0	1	0
Infection[1]	9(15)	0	1	4	1	1	1	0	1
Tachycardia[1]	3(5)	0	0	2	1	0	0	0	0
Headache[1]	3(5)	0	0	0	3	0	0	0	0
Hypophosphatemia[1]	4(6.7)	0	0	4	0	0	0	0	0
Stomatitis or oral lesion[1]	2(3.3)	0	0	0	0	1	0	0	1
Leukopenia[1]	10(16.7)	0	0	2	0	2	1	2	3

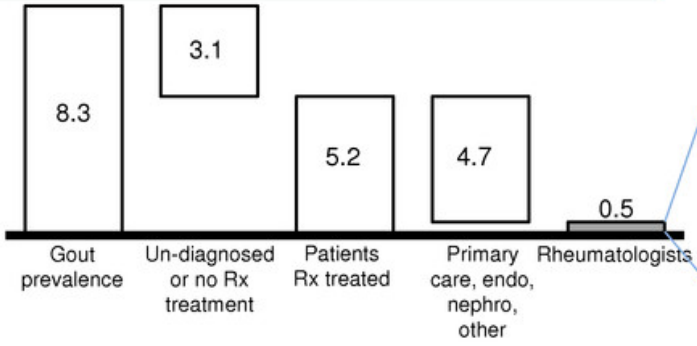
#Not related to study drug. Patient underwent a cholecystectomy
*Patient incorrectly dosed; protocol deviation
(1) Observed at single data points, transient in nature and mild or moderate

Unaudited data as of June 12, 2017
Clinicaltrials.gov NCT02959918

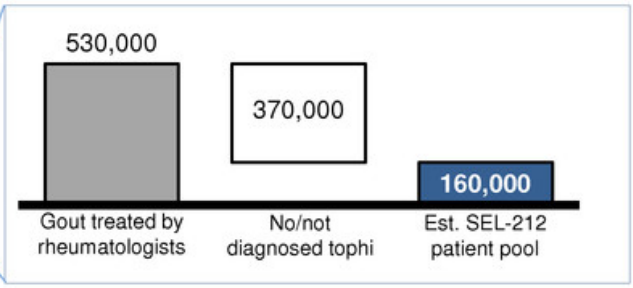
The Unmet Need

Substantial Unmet Need for Chronic Severe Gout Patients

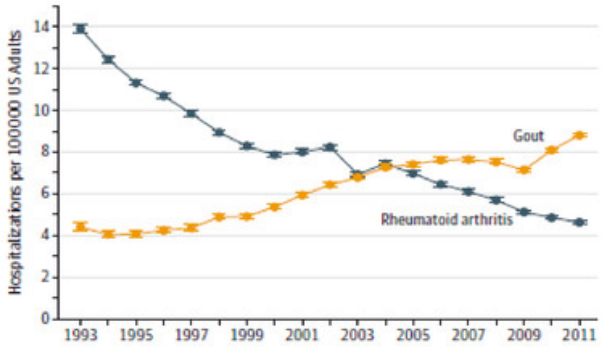
U.S. Gout Patients (million)[1]



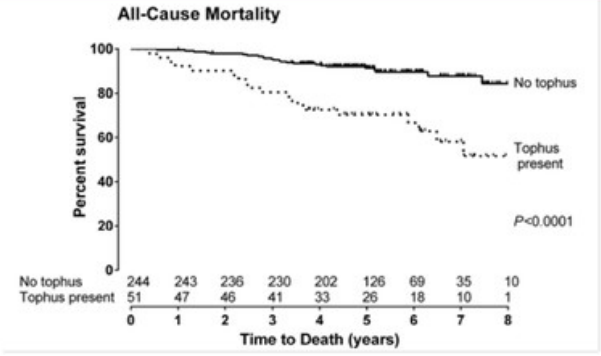
Estimated SEL-212 Target Patient Population[1]



Gout Admissions Now Exceed RA[2]



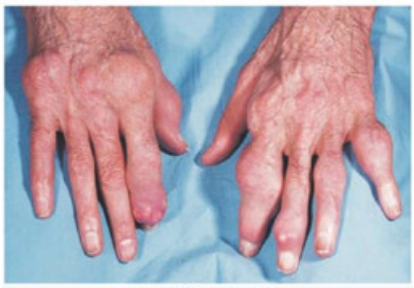
Tophi Significantly Increase Mortality Risk[3]



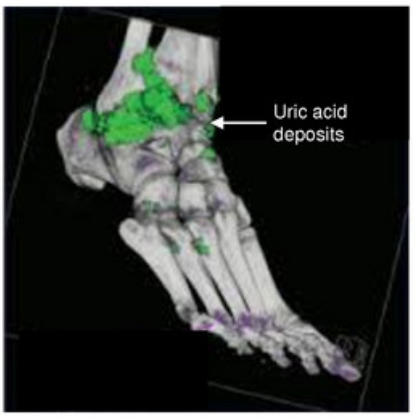
(1) IMS, Desk Research, Selecta rheumatologist interviews, Crystal patient registry
(2) Choi HK et al, Trends in Gout and Rheumatoid Arthritis Hospitalizations in the United States, JAMA, June 2016

(3) Vincent Z et al, Predictors of Mortality in People with Recent Onset of Gout: A Prospective Observational Study, ACR, Sept. 2016

What is Chronic Severe Gout?



Visible tophi

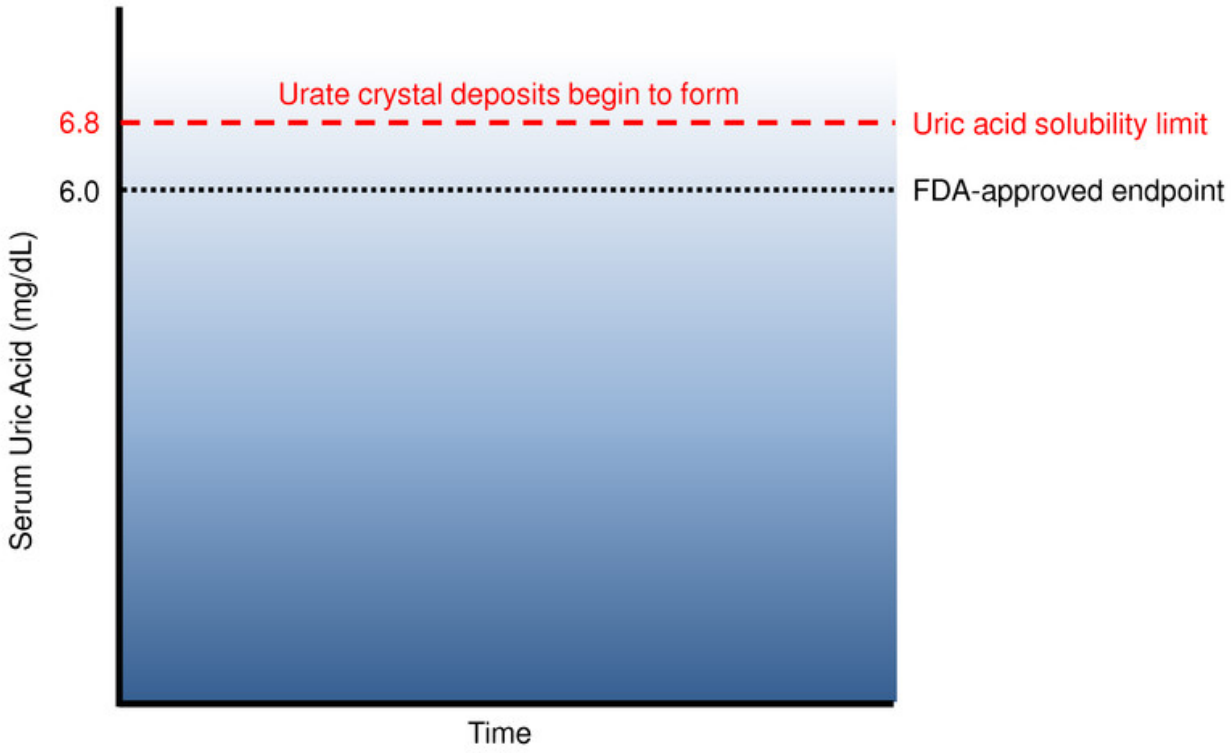


Hidden uric acid deposits

- ~50,000 U.S. gout patients are refractory to standard therapies and most have existing "tophi"[1]
- Over 100,000 additional patients have tophaceous gout and remain symptomatic[2]
- Tophi are hidden or disfiguring inflammatory nodules of crystallized uric acid that form in severe gout patients
  - Tend to form primarily in joints and tissues
  - Source of recurrent flares and debilitating pain that cannot be treated effectively by simply lowering sUA to <6 mg/dL
  - Shown to significantly increase morbidity and mortality if left untreated[3,4]

(1) IMS, Desk Research
(2) Selecta rheumatologist interviews, Crystal patient registry
(3) Choi HK et al, Tophaceous Gout and the Risk of Mortality: A General Population-Based Study, ACR, Sept. 2016
(4) Zhu Y, et al, Comorbidities of gout and hyperuricemia in the US general population: NHANES 2007-2008, Am J Med, July 2012

The Clinical Endpoint for Gout Medication Approvals is Well-Defined



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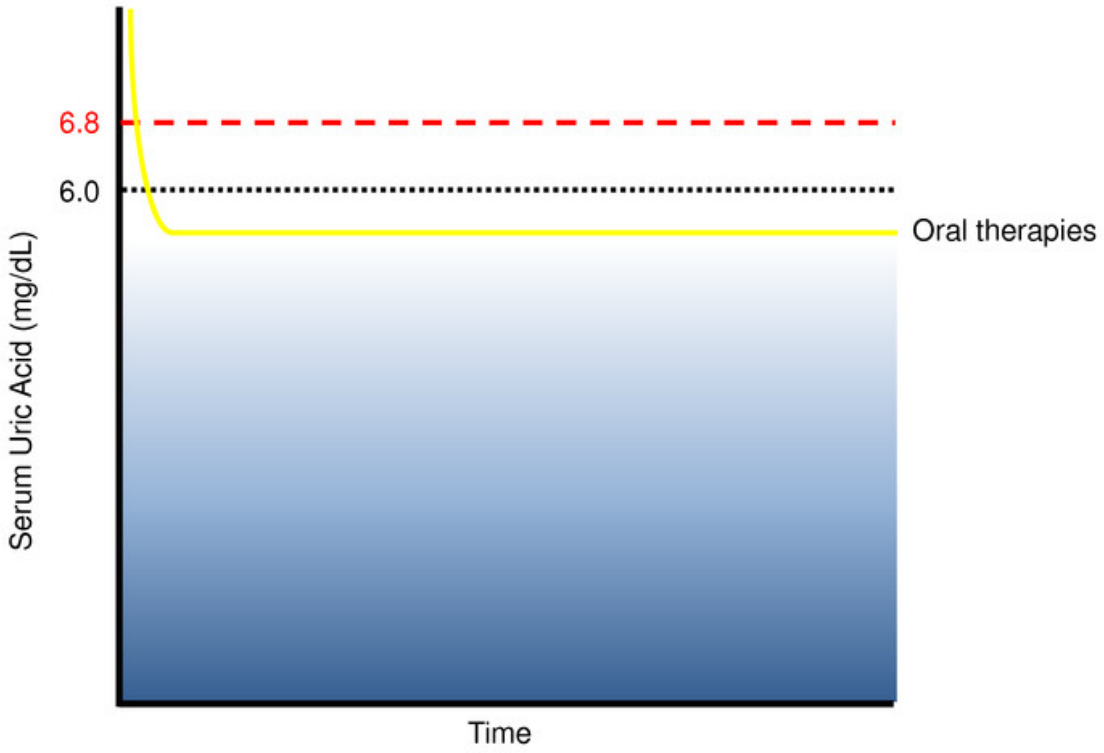
While Oral Therapies May Control sUA, They do not Effectively Resolve Tophi



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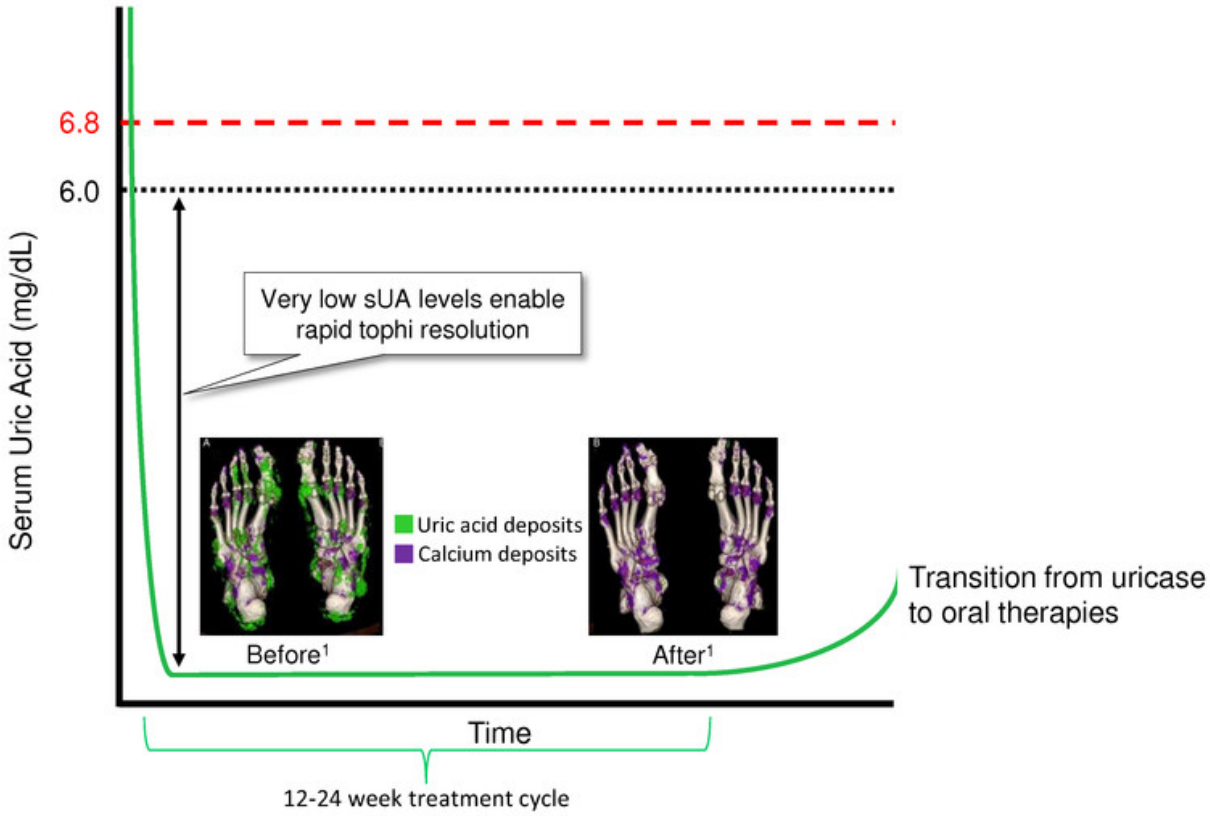
For illustrative purposes only

Resolving Tophi and Uric Acid Deposits with Monthly Uricase Treatments



(1) Arujo EG et al, Tophus resolution with pegloticase: a prospective dual-energy CT study, RMD Open, 2015

For illustrative purposes only

Phase 2 Trial Accomplishments to Date

- ✓ Controlled sUA and avoided ADAs after multiple doses
- ✓ Induced immune tolerance
- ✓ Demonstrated low incidence of flares
- ✓ SEL-212 generally well tolerated at active dose levels
- ✓ Identified minimum effective dose
- ✓ Data allows initial preparation of Phase 3 program design

Additional cohorts to be enrolled in weeks ahead


Platform Implications
SELECTA

Immunogenicity's Impact on Biologic Drugs and Product Candidates is Far-Reaching

COMPROMISED EFFICACY
Anti-drug antibodies (ADAs) neutralize therapeutic benefit

SAFETY RISK
Hypersensitivity reactions can impact patients

UNPREDICTABLE RESPONSE
Changed PK/PD through drug-ADA interaction

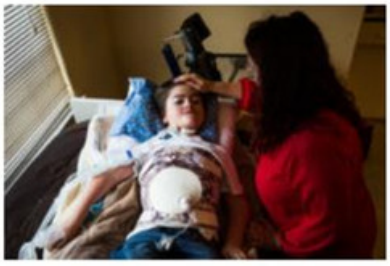
The New York Times

When the Immune System Thwarts Lifesaving Drugs

Patients often produce antibodies to the very treatments keeping them alive, sometimes to disastrous effect.

By GINA KOLATA

May 15, 2017



"Prophylactic immune tolerance induction should be strongly considered in patients who are at risk of *developing immune responses to ERT.*"

– **Amy Rosenberg, MD**, Director, Division of Biotechnology Products Review and Research, FDA

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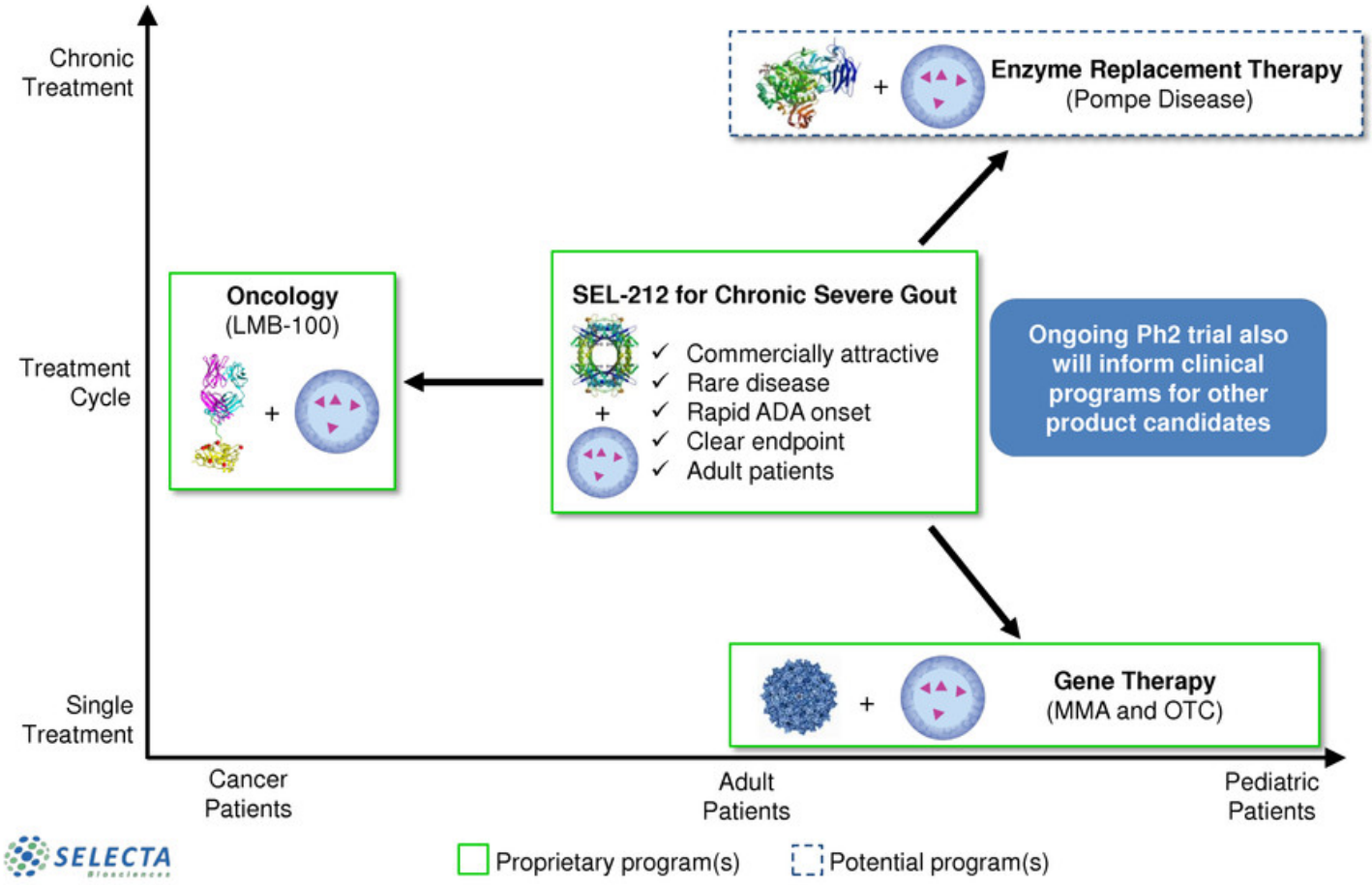
SEL-212 Trial Data Inform Platform Expansion and Progression



Immune Tolerance Pipeline

Indication	Description	Preclinical	Phase 1	Phase 2
Proprietary ADA Mitigation Programs				
Refractory Gout	SVP-Rapamycin co-administered with pegsiticase (SEL-212)			
Mesothelioma & Pancreatic Cancer*	SVP-Rapamycin co-administered with LMB-100			
Methylmalonic Acidemia (MMA)	SVP-Rapamycin co-administered with Anc80 vector			
Ornithine Transcarbamylase Deficiency (OTC)	SVP-Rapamycin co-administered with AAV vector			
ADA Mitigation Program License				
Hemophilia A	SVP-Rapamycin licensed for FVIII gene therapy	Spark THERAPEUTICS		

* LMB-100 is currently being investigated in two Phase 1 clinical trials at the National Cancer Institute (NCI): one of LMB-100 alone in Mesothelioma and one of LMB-100 in combination with nab-paclitaxel in Pancreatic Cancer. Selecta and NCI are currently in discussions regarding a planned Phase 1b clinical trial to evaluate multiple cycles of LMB-100 in combination with SVP-Rapamycin.

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