Selecta Biosciences Announces Six Presentations at the Upcoming 25th Annual Meeting of the American Society of Gene & Cell Therapy (ASGCT)

May 2, 2022

Data to be featured in two oral presentations and four poster presentations

WATERTOWN, Mass., May 02, 2022 (GLOBE NEWSWIRE) -- Selecta Biosciences, Inc. (NASDAQ: SELB), a biotechnology company leveraging its clinically validated ImmTOR® platform to develop tolerogenic therapies for autoimmune diseases, power gene therapies and mitigate unwanted immune responses to biologics, today announced six upcoming presentations, including three joint presentations with our partner AskBio, at the 25th Annual Meeting of the American Society of Gene & Cell Therapy (ASGCT), to be held virtually and in-person from May 16-19, 2022 in Washington, D.C. These presentations demonstrate the power of Selecta's immune tolerance platform, ImmTOR ®, in mitigating unwanted immune responses to AAV capsids and potentially enabling gene therapy re-dosing for patients with severe genetic disorders.

"We are thrilled to present data demonstrating ImmTOR's ® ability to inhibit anti-AAV antibody formation and potentially enable re-dosing of gene therapies. Excitingly, in a first-in-human clinical trial conducted with our partner AskBio, we demonstrated the ability of ImmTOR® to blunt the early immune response to empty AAV8 capsids" said Dr. Kei Kishimoto, Ph.D., Chief Scientific Officer of Selecta. "Furthermore, we are pleased to showcase results indicating an evolution of our ImmTOR® platform is close at hand. Combining ImmTOR® with engineered T-reg specific IL-2 mutein (ImmTOR-IL™) synergistically enhances the magnitude and durability of mitigation of anti-AAV antibody formation in preclinical studies. We look forward to initiating our Phase 1 clinical trial for the treatment of methylmalonic acidemia, building on these data, and continuing our efforts to help patients overcome autoimmunity and immunogenicity with our precision immune tolerance therapies."

Details and key takeaways from ASGCT presentations are as follows:

Oral Presentations:

Selecta Presentation Title: Mechanisms, Monitoring, and Mitigation of Host Immune Responses to AAV Gene Therapy Vectors
Session Title: Immune Responses to Gene Therapy
Presenter: Kei Kishimoto, Ph.D., Selecta Biosciences
Presentation Date and Time: Monday, May 16, 2022, 2:20 - 2:45 p.m. ET
Key takeaways: General overview of the various ways that the immune response affects the efficacy and safety of AAV gene therapy and development of ImmTOR® to mitigate these effects.

Selecta & AskBio Presentation Title: Functional Assessment of T Cell Responses to AAV8 Empty Capsids in Healthy Volunteers
Session Title: Immune Responses to AAV Vectors
Abstract Number: 37
Presenter: Shari Gordon, AskBio
Presentation Date and Time: Monday, May 16, 2022, 10:30 - 10:45 a.m. ET
Key takeaways: This study demonstrates for the first time that empty AAV capsids, a hidden component of all AAV gene therapies, are highly immunogenic in humans.

Poster Presentations:

Selecta Presentation Title: ImmTOR® Combined with B Cell-Targeted Therapies Provides Synergistic Activity in Mitigating Anti-AAV Capsid Antibody Responses and Enables Repeated Vector Dosing
Session Title: Immunological Aspects of Gene Therapy and Vaccines II
Poster: W-255
Abstract Number: 1129
Presenter: Petr Ilyinskii, Selecta Biosciences
Presentation Date and Time: Wednesday, May 18, 2022, 5:30 - 6:30 p.m. ET
Key takeaways: The combination of ImmTOR® and B cell-targeted therapies act synergistically to inhibit anti-AAV antibody response to enable repeated dosing, including vectors doses up to 5E13 vg/kg.

Selecta Presentation Title: Combination of ImmTOR® Tolerogenic Nanoparticles and IL-2 Mutein Synergistically Inhibits the Formation of Anti-AAV Antibodies
Session Title: Immunological Aspects of Gene Therapy and Vaccines II
Poster: W-256
Abstract Number: 1130
Presenter: Kei Kishimoto, Ph.D., Selecta Biosciences
Presentation Date and Time: Wednesday, May 18, 2022, 5:30 - 6:30 p.m. ET
Key takeaways: ImmTOR-IL™, the combination of ImmTOR® and Treg-selective IL-2 mutein, show profound synergistic effects on inducing antigen-specific Treg and enable more durable inhibition of anti-AAV antibody response at vectors doses up to 5E13 vg/kg.

Selecta & AskBio Presentation Title: Effect of Tolerogenic ImmTOR® Nanoparticles on the Formation of Anti-AAV8 Antibodies in Mice, Nonhuman primates, and Healthy Human Volunteers
Session title: Immunological Aspects of Gene Therapy and Vaccines I
Poster: Tu-216
Abstract Number: 711
Presenter: Peter Traber, M.D., Selecta Biosciences
Presentation Date and Time: Tuesday, May 17, 2022, 5:30 - 6:30 p.m. ET
Key takeaways: A single dose of ImmTOR® is shown to mitigate the early anti-AAV neutralizing antibody response in humans and preclinical studies indicate that antibody inhibition can be sustained with multiple doses of ImmTOR®.

Selecta & Askbio Presentation Title: ImmTOR® Blunts AAVrh32.33 Capsid-specific Immune Responses in C57BL/6 Albino Mice
Session Title: Immunological Aspects of Gene Therapy and Vaccines I
Poster: Tu-213
Abstract Number: 708
Presenter: Md Mahmudul Hasan, AskBio
Presentation Date and Time: Tuesday, May 17, 2022, 5:30 - 6:30 p.m. ET
Key takeaways: ImmTOR® is shown to inhibit capsid-specific CD8 T cell responses, which in human clinical trials have been associated with serum transaminase elevation and loss of transgene expression.

Following the conference, the presentations will be available in the Resources section of Selecta's website at www.selectabio.com/resources/.

About Selecta Biosciences, Inc.

Selecta Biosciences, Inc. is a clinical stage biotechnology company leveraging its ImmTOR® platform to develop tolerogenic therapies that selectively mitigate unwanted immune responses.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements regarding the completion and anticipated proceeds of the proposed offering. All such forward-looking statements are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties related to fluctuations in Selecta's stock price, changes in market conditions and satisfaction of customary closing conditions related to the offering, as well as the other factors discussed in the "Risk Factors" section in Selecta's most recently filed Annual Report on Form 10-K as well as other risks detailed in Selecta's subsequent filings with the Securities and Exchange Commission. There can be no assurance that Selecta will be able to complete the proposed offering on the anticipated terms. All information in this press release is as of the date of the release, and Selecta undertakes no duty to update this information unless required by law.

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