

Press release

Integra Therapeutics CEO Avencia Sánchez-Mejías to speak at Global Synthetic Biology Conference



- **The world’s biggest conference of the synthetic biology industry will kick off tomorrow in Oakland, California, with more than 2,000 CEOs, scientists, and investors from the US and internationally.**
- **Integra Therapeutics will announce novel gene writing platform based on programmable insertion lentiviral vectors (PILV) that can be deployed for in vitro and in vivo cell and gene therapies.**

Oakland, California, US & Barcelona, Spain – May, 22 2023. Integra Therapeutics, a global leader in creating next-generation gene writing tools to make advanced therapies safer and more effective, announced today that its CEO, Dr Avencia Sánchez-Mejías, will be a featured speaker at the Global Synthetic Biology Conference from **May 23 to 25 in Oakland, California**.

Hosted by SynBioBeta, this is the biggest event for business and investment in the field of synthetic biology, showcasing the cutting-edge industrial developments that are transforming how we fuel, heal and feed the world. This year, the conference will welcome more than 2,000 CEOs, scientists, investors and thought leaders from the United States and internationally.

Dr Avencia Sánchez-Mejías will contribute her expertise as a panelist in two debates during the conference. In the panel titled **“How is synbio transforming preclinical drug discovery?”** taking place on **Tuesday, May 23, at 1:45 pm local time**, she will talk about how we can engineering

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biological systems to bring novel solutions to patients, whether companies and institutions can bring these synthetic biology tools together in collaborative tech stacks to further accelerate time to clinic, the challenges of bringing these tools into pharma pipelines and the opportunities that will be emerging in the next three years.

On **Thursday, May 25, at 1:45 pm local time**, Dr. Avencia Sánchez-Mejías will moderate the panel **“What’s next for cell and gene therapy?”**. Cell and gene therapies are powerful technologies that can address the root causes of disease. However, only liquid cancers and a very small number of genetic illnesses can be targeted. These therapies are also far too expensive and difficult to manufacture. The panel will explore how to make cell and gene therapies more precise and cost-effective, whether it is better to take an allogeneic or autologous approach, and how the regulatory landscape needs to adapt for these therapies.

Integra Therapeutics is developing one of the most promising gene writing technologies, named FiCAT, to solve the current limitations of gene therapy (gene size, precision, and stability) and to contribute to the prevention and treatment of a wide range of genetic diseases and cancer without effective therapies. FiCAT is based on DNA transposases for programmable and precise gene insertion without size limitation.

Recently, **FiCAT finished preclinical in vivo studies** that demonstrate complete viral free mediated DNA integration precisely in liver cells after systemic delivery of lipid nanoparticles targeting the liver in mice models. These results push the barriers of size limitation in DNA deliver of adeno-associated virus (AAV) gene therapy vectors and overcomes the lack of durable expression of non integrative approaches. The data was presented at the Precision Genome Engineering Meeting organized by Keystone Symposia, last March in Whistler (Canada).

At the 2023 Global Synthetic Biology Conference, Integra Therapeutics will announce novel **gene writing platform based on programmable insertion lentiviral vectors (PILV)** that can be deployed for in vitro and in vivo therapies. To create the PILV gene writing platform, Integra Therapeutics has leveraged synthetic biology in its drug development program and combined artificial intelligence models for novel sequence generation in a paradigm of reinforcement learning with high throughput screening methods. Engineering of **retroviral integrases** for programmable integration has allowed for unprecedented viral based precise DNA insertion at defined loci in the genome. The platform can leverage highly efficient delivery to many cell types with increased safety features, including integration site selection.

As a result, “PILV is a great technological complement to the portfolio of platforms in the gene writing space”, comments Dr Avencia Sánchez-Mejías.

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The synthetic biology market is growing because it has demonstrated its revolutionary capacity of transforming the development and production of therapies, vaccines, and diagnostics. In 2021, it was valued at USD 9.3 billion, and it is anticipated to attain a value of USD 52 billion by 2028.

Integra Therapeutics has opened a Series A funding round to continue with regulatory preclinical and clinical development of FiCAT.

About Integra Therapeutics

Integra Therapeutics is a biotechnology company that is creating next-generation gene writing tools to make advanced therapies safer and more effective. The company was founded in 2020 as a spin-off of Pompeu Fabra University (UPF) by Dr Marc Güell and Dr Avencia Sánchez-Mejías and is based at the Barcelona Biomedical Research Park (PRBB). It is supported by international investors (AdBio Partners, Columbus Venture Partners, Invivo Capital and Takeda Ventures) and organizations in the healthcare and biomedicine sector. More information: integra-tx.com

About Dr Avencia Sánchez-Mejías

She is CEO and Co-Founder of Integra Therapeutics. PhD in Molecular Biology and Master in Biomedical Research from the University of Seville, Spain. She has had a solid career in clinical genetics, molecular oncology and synthetic biology at research centres tied to university hospitals in several countries, including Spain, the United States and Singapore. In 2018, she joined the Translational Synthetic Biology Lab at Pompeu Fabra University, led by Dr Marc Güell. In recent years, she has focused on transferring the knowledge generated in these institutions to society through her entrepreneurial project, Integra Therapeutics. She is committed to helping develop female talent and encouraging coming generations to go into STEM fields. In 2021, she was chosen to take part in the Academy for Women Entrepreneurs programme promoted by Foment del Treball and the US Consulate in Barcelona. In 2022, she won the first edition of the Women and Leadership Award promoted by Deusto Business School, *Cinco Días* and Banco Santander.

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