

## Roswell Biotechnologies Forms Scientific Advisory Board

*Leaders in tech, biotech, and synthetic biology join to advance first commercial molecular electronics chip*

SAN DIEGO, Calif., Oct. 28, 2021-- [Roswell Biotechnologies, Inc.](#), the molecular electronics company, announced today the formation of its Scientific Advisory Board (SAB). Comprised of industry and academic leaders in science and technology, the new SAB will be instrumental in the final stages of development and commercialization of the company's molecular electronics chip, a fully scalable universal biosensor capable of seeing molecular interactions at the single-molecule level.

"We are extremely pleased to assemble such a world-class SAB representing leading minds in multiple disciplines, including molecular electronics, biology, genomic sequencing, synthetic biology, chemistry, precision medicine, and mathematics," said Roswell Biotechnologies CEO Paul Mola. "Our pursuit of the ultimate biosensor is truly a multi-disciplinary effort. The expertise and experience of our SAB will be invaluable as we bring to market the first commercial molecular electronics chip, initially for basic research, drug discovery, and molecular diagnostics."

"Molecules were first crafted into working circuits more than 20 years ago, but without a way to scale this technology, we've been unable to realize its potential," said Rice University Professor Jim Tour, PhD, an SAB board member. "Roswell's invention - to integrate single molecules into standard semiconductor chips to act as biosensors - is a fundamental advance that will give us a new window into biological interactions. I'm honored and excited to be working with Roswell to bring this technology to market."

The Roswell Scientific Advisory Board members include:

### [James Tour, PhD](#)

A synthetic organic chemist, Dr. Tour is well known for his work in nanotechnology and achievements in molecular electronics and molecular switching models. At Rice University's Center for Nanoscale Science and Technology, Dr. Tour serves as the T. T. and W. F. Chao

Professor of Chemistry, Professor of Computer Science, and Professor of Materials Science and NanoEngineering. Dr. Tour has been cited on numerous occasions as one of the top chemists and most influential scientists in the world.

#### [Sandra Schmid, PhD](#)

Dr. Schmid serves as Chief Scientific Officer of the Chan Zuckerberg Biobub. Before the Biohub, Dr. Schmid was at the University of Texas Southwestern Medical Center (UTSW), where she held the Cecil H. Green Distinguished Chair in Cellular and Molecular Biology and served as chair of the Department of Cell Biology. Dr. Schmid's career has focused on cell biology, and her work has been published extensively. She is a member of the National Academy of Sciences and has won numerous awards.

#### [Drew Hall, PhD](#)

Dr. Hall is an Associate Professor at the University of California, San Diego, in the Department of Electrical and Computer Engineering, and an Affiliate Professor in Bioengineering. His research interests focus on the intersection of engineering and the life sciences, and his research group works specifically on bioelectronics, biosensors, analog circuit design, medical electronics, and sensor interfaces. Dr. Hall has received numerous awards, including an NIH Trailblazer Award in 2019.

#### [Eli Yablonovitch, PhD](#)

Dr. Yablonovitch is Professor of Electrical Engineering and Computer Sciences at the University of California, Berkeley. He is the Director of the NSF Center for Energy Efficient Electronics Science (E3S), a multi-university center headquartered at Berkeley. Dr. Yablonovitch's research has focused on physical electronics, and he is known as the "Father of the Photonic BandGap" concept. He co-Founded Luxtera, Inc., the leader in silicon photonics, later acquired by Cisco Systems, among other successful startups. Dr. Yablonovitch's inventions are used by billions of people every day. He is a member of the National Academy of Sciences, the National Academy of Engineering, and a Foreign Member of the Royal Society of London.

#### [George Church, PhD](#)

Dr. Church leads synthetic biology at the Wyss Institute at Harvard University, where he oversees the directed evolution of molecules, polymers, and whole genomes to create new tools with applications in regenerative medicine and bio-production of chemicals. He is a Professor of Genetics at Harvard Medical School and a professor of health sciences and technology at Harvard and MIT. Widely recognized

for his innovative contributions to reading DNA and synthetic biology, Dr. Church developed the first direct genomic sequencing method, which resulted in the first genome sequence. He has received many awards, including the 2011 Bower Award, and is a member of the National Academy of Sciences, and the National Academy of Engineering.

Stanley Nelson, M.D.

Dr. Nelson is Professor of Human Genetics, Psychiatry, Pediatrics, Pathology and Laboratory Medicine in the David Geffen School of Medicine at the University of California, Los Angeles. His career has focused on technology development and the application of genomics to cancer biology and human diseases, with research in autism, ADHD, vertigo, brain cancers, rare disease diagnostics and therapeutics. He developed and led the first genomics core at UCLA, the UCLA DNA Microarray Facility. He developed the California Center for Rare Diseases and serves as Director, and co-founded the UCLA Center for Duchenne Muscular Dystrophy and Clinical Genomics Center. He has served as PI on numerous National Institute of Health genomics projects including the Undiagnosed Diseases Network. His laboratory continues to develop and use integrated genomic technologies to glean biological insights that lead to new medicines.

Stanley Osher, PhD

Dr. Osher is a Professor of Mathematics, Computer Science, Electrical Engineering, and Chemical and Biomolecular Engineering at the University of California, Los Angeles. He currently serves as Director of Special Projects at the Institute for Pure and Applied Mathematics at UCLA. His group's research has made fundamental contributions to applied mathematics, computational science, and scientific computing. Dr. Osher co-invented the level set methods and other numerical methods for partial differential equations, which have direct applications in image processing, video image enhancing, and animation. A member of the National Academy of Engineering, the National Academy of Sciences, and the American Academy of Arts and Sciences, Dr. Osher is widely cited and has won numerous awards, including the Gauss prize, which is the most prestigious prize in Applied Mathematics.

## **About Roswell Biotechnologies**

Roswell Biotechnologies is digitizing biology with molecular electronics to elucidate, diagnose and treat disease. The company has developed the world's first molecular electronics chip, the Roswell ME Chip™, by integrating single molecules into standard semiconductor chip technology to deliver a robust biosensor that converges all omics on one platform.

The Roswell ME Chip reads all molecules of life - enzymes, DNA, RNA, proteins, and small molecules - and for the first time provides direct real-time electrical detection of single-molecule events on-chip. Designed to overcome the enduring scaling limitations of genomic sequencing technologies, the Roswell ME Chip Platform significantly reduces genomic sequencing's cost and complexity to advance basic and translational research, precision medicine, molecular diagnostics, environmental surveillance, and digital DNA data storage. Roswell Biotechnologies was founded in 2014 by leaders in DNA sequencing and is headquartered in San Diego, California.

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