

January 12, 2012

# UCSB Bioengineering Leader Frank Doyle Named Innovator of the Year

## Professor Frank Doyle to be honored as Innovator of the Year by the Santa Barbara Region Chamber of Commerce



### NEWS RELEASE

Professor

(Santa Barbara, Calif. ?) The Santa Barbara Region Chamber of Commerce will honor Dr. Francis J. Doyle III, an engineering professor at UC Santa Barbara, as Innovator of the Year for the worldwide impact of his bioengineering research and development of artificial pancreas technology for type 1 diabetes patients.

Frank Doyle is a preeminent leader in control systems research who has pioneered the development of an intelligent and biofeedback-responsive artificial human pancreas. He led the development of software for the [Artificial Pancreas System](#) (APS), which has been licensed at several sites worldwide for clinical trials. In collaboration with researchers at the Sansum Diabetes Research Institute, Doyle started the Artificial Pancreas Research Program in 2003 and successfully tested a prototype of the computerized artificial pancreas system in patients with type 1 diabetes in 2007. The project was sponsored by the Juvenile Diabetes Research Foundation and the National Institutes of Health (NIH).

"This is a particularly exciting recognition for our team, coming from the Santa Barbara Chamber of Commerce, because this work could only happen in Santa Barbara with the top-ranked engineering program at UCSB and the historical legacy of groundbreaking diabetes research at the Sansum Diabetes Research Institute," said Doyle.

At the helm of a team of international diabetes research experts, Doyle and his colleagues were awarded \$4.5 million from the NIH in 2011 to further their smart artificial pancreas technology for testing in outpatient trials. In what Doyle calls "medically-inspired engineering," the project assembles world leaders in biomedical research who aim to develop an artificial pancreas device that can be approved by regulatory agencies and distributed to patients by physicians within the next few years.

The [Doyle Group](#) at UCSB is on the leading edge of computational research applied to biological regulatory systems. Doyle's research applies computer engineering and mathematical modeling to analyze complicated data from biological and ecological processes, from molecular-level chemical exchanges in the human body to broader systems such as coral spawning. His research has helped illuminate the complex pathways that control circadian rhythms, and have applications in understanding diabetes, drug delivery systems, Alzheimer's disease, and post-traumatic stress disorder (PTSD).

"Professor Doyle is an inspiring leader in the field of bioengineering and a tremendous asset to the College faculty," said Rod Alferness, Dean of the College of Engineering at UCSB. "We are thrilled he will be honored and recognized for his achievements by the Santa Barbara Region Chamber of Commerce."

Frank Doyle holds the Duncan and Suzanne [Mellichamp Chair in Process Control](#) at UCSB and is a professor of Chemical Engineering as well as Electrical and Computer Engineering. He is Director of the [Institute for Collaborative Biotechnologies](#) and the Associate Dean of Research for the [College of Engineering](#) . In his role as Associate Dean, he has been responsible for a number of bioengineering initiatives at UCSB including a new [Center for BioEngineering](#), and the design of a proposed Bioengineering Building. Doyle was named a Fellow of the American Association for the Advancement of Science (AAAS), the American Institute for Medical & Biological Engineering (AIMBE), the International Federation of Automatic Control (IFAC) and the Institute of Electrical and Electronics Engineers (IEEE). He received his Master's degree from Cambridge University and a Doctorate from the California Institute of Technology.

The Santa Barbara Chamber of Commerce 4th Annual [Award Luncheon](#) will be held on Friday, January 20, 2012, from 11:30 a.m. to 1:30 p.m. at the Four Seasons Biltmore Coral Casino. For more information or to purchase tickets, please contact Marcia Reed, Vice President, by calling (805) 965-3023.

---

## Images



---

## Related Links

[Professor Frank Doyle - Profile](#)

[Santa Barbara Region Chamber of Commerce Event Listing](#)

[The Institute for Collaborative Biotechnologies](#)

[Center for BioEngineering](#)

---

## Media Contact

Melissa Van De Werfhorst

[melissa@engineering.ucsb.edu](mailto:melissa@engineering.ucsb.edu)

(805) 893-4301

---