



INFORMATION

News

- + San Diego
- + California
- + National

MarketLink

Water

Construction

Defense

Economy

Education

Finance

Government

Health

Hospitality

Law

Real Estate

Technology

Commentary



RESOURCES

- Attorney Directory
- Awards & Programs
- Business Center
- Media Center
- Newsmakers
- Online Plan Room
- Roundtables
- Soaring Dimensions
- SourceBook
- Special Reports
- Water
- Yellow Pages

RESEARCH

- Classifieds
- Public Notices
- Site Index
- Source Sales Tools

COMMUNITY

- Arts and Entertainment
- Communities
- Events
- Landmarks
- Movies
- Restaurants
- Traffic
- Travel
- Weather

CORPORATE

- Advertising
- Company Info
- Contact Us
- Feedback

The San Diego Source | The Daily Transcript is San Diego's only information company offering business news, data and resources daily and hourly. We report on San Diego business, finance and the San Diego economy, real estate, construction, the U.S. military in San Diego, and San Diego government construction bids.

SEARCH

Enter Keywords or SourceCode

Go

Thursday, February 24, 2011

NEWS | SAN DIEGO

CLOSE-UP: MITCHELL KRONENBERG

Institute's top scientist looks at immune system's role in disease, one gene at a time

By JENNIFER McENTEE, Special to The Daily Transcript
Thursday, February 24, 2011

Print E-Mail

SHARE

If you want to understand disease, you have to understand the immune system, according to Mitchell Kronenberg, president and chief scientific officer at the nonprofit La Jolla Institute for Allergy & Immunology.

"The immune system of your body patrols almost every corner of your body," Kronenberg said. "If you don't have an immune system, you don't last very long."

He cited AIDS and severe combined immunodeficiency, more commonly known as Bubble Boy Syndrome, as examples of the importance of the immune system. There are more than 80 known autoimmune disorders, he added.

"It could really be the key to human health," said Kronenberg.

The La Jolla institute focuses its research exclusively on the immune system's role in various diseases, a novel approach taken by only a few other scientific organizations in the world.



Mitchell Kronenberg

"Immunologists are typically scattered around," Kronenberg said. "It's a unique model to have immunologists with different interests under one roof, but it means we can cross-fertilize."

The La Jolla Institute for Allergy & Immunology has 21 independent labs, Kronenberg said, with scientists doing work in areas including infectious diseases, cancer, rheumatoid arthritis, type 1 diabetes, Crohn's disease and asthma.

Kronenberg's own lab has two research areas: the study of antibacterial responses, and also of inflammatory bowel disease.

The institute is primarily funded by research grants from the National Institutes of Health, including a recent \$12.6 million award to develop a center for RNAi screening. Within living cells, RNA interference helps to control which genes are active and how active they are. It plays an important role in defending cells against parasitic genes and also directs development and gene expression.

The RNAi screening center will be the first of its kind in San Diego and will be accessible to researchers throughout the San Diego biomedical community, Kronenberg said.

The center will use a high-throughput screening model to sift through the 26,000 or so genes that make up the human genome, he said. By isolating and testing individual genes, scientists can gain a greater understanding of their specific roles in disease.

The facility space for the RNAi center could be ready in May, with screenings to begin soon after, he said. The center will start out with three full-time employees.

The level of support the La Jolla Institute for Allergy & Immunology receives from the NIH is what drew Kronenberg away from the UCLA School of Medicine in 1997.

"I was a professor at UCLA. I had a nice position and was doing well," he explained. "But grants are very competitive in that setting, and it makes people insecure."

NIH funding at the La Jolla institute is spread around pretty evenly, making for a more comfortable and creative research environment.

"We all get funding to do something a little bit riskier," he said.

Still, the down economy puts limitations on scientific discovery, Kronenberg said.

"In all the years I've been doing this, I think now is the best time because of the tools we have, but also the worst time because there are big deficits in government funding."

Adequate funding is important because for all that is known about the immune system, the field is still largely uncharted, he said. "We don't understand immunology as much as we'd like. We don't really have a good idea of why there are these immune system disorders, or why the incidents are increasing, particularly in industrial and post-industrial societies. That's a huge area of interest for me."

There likely won't be a one-size-fits-all cure for immune system disorders, but rather customized treatments, he said.

"There isn't going to be one single lever. I think that's what we're going to learn here," Kronenberg said. "The treatment will likely be tailored to the defect, but we're not at that level yet."

"We don't know enough about the causes, but we're making progress. I'm optimistic."

McEntee is a San Diego-based freelance writer.

User Response

Leave Your Comment

Name:

E-mail:

Comment:

1000 char. max.

Homebuilder and 1031 services, due diligence solutions



First American

RENEW | LOG OUT

Hughes Marino
Because where you do business matters™

THE NEW STANDARD OF LUXURY OWNERSHIP

LEARN MORE >>

COMPARE >>

Homebuilder and 1031 services, due diligence solutions



San Diego's



Lowest Prices