

Viasat-1 launch with Proton/Breeze-M from Baikonur



October 19th, 2011

Welcome CAP Executive Board



 UCSD
Jacobs | School of
Engineering

February 2, 2012

CAP Leadership 2011 - 2012



**CAP Chairman:
Anton Monk, Ph.D. UCSD '94
Co-Founder & VP Technology
Entropic Communications**



**CAP Vice Chairman:
Rusty Sailors
Chief Project Engineer, Director
BAE Systems**

Welcome New CAP Members!



CliniComp, Intl.



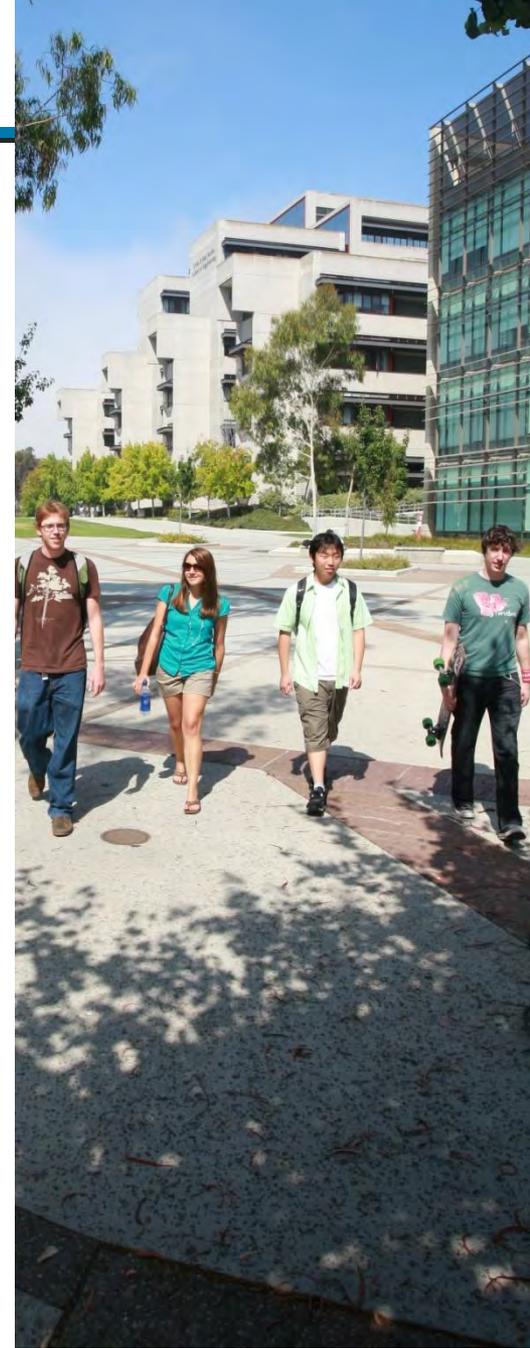
Schlumberger

Welcome Distinguished Students

Triton Engineering Student Council

Jacobs Graduate Student Council

IDEA Scholars

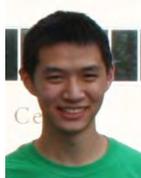


Welcome Jacobs School Student Organization Leaders

Justin Huang, CSE'12

**President
Triton Engineering Student Council (TESC)**





Justin Huang
President



Remle Deinla
External Outreach Officer



Eduardo Mateo
External FORCE Officer



New event:
**Aperture Laboratories
at Jacobs**



New event: e^n



Enspire 2012: From t-shirts to robots





Who's in charge:
Salome Vasquez
1st year, Mechanical Engineering



Who's in charge:
Avital Slavin
2nd year, Chemical Engineering



New collaborators
and sponsors:



Stuart Art Collection



Girl Scouts®



DECaF Corporate
Sponsors:



New!



New!



communications

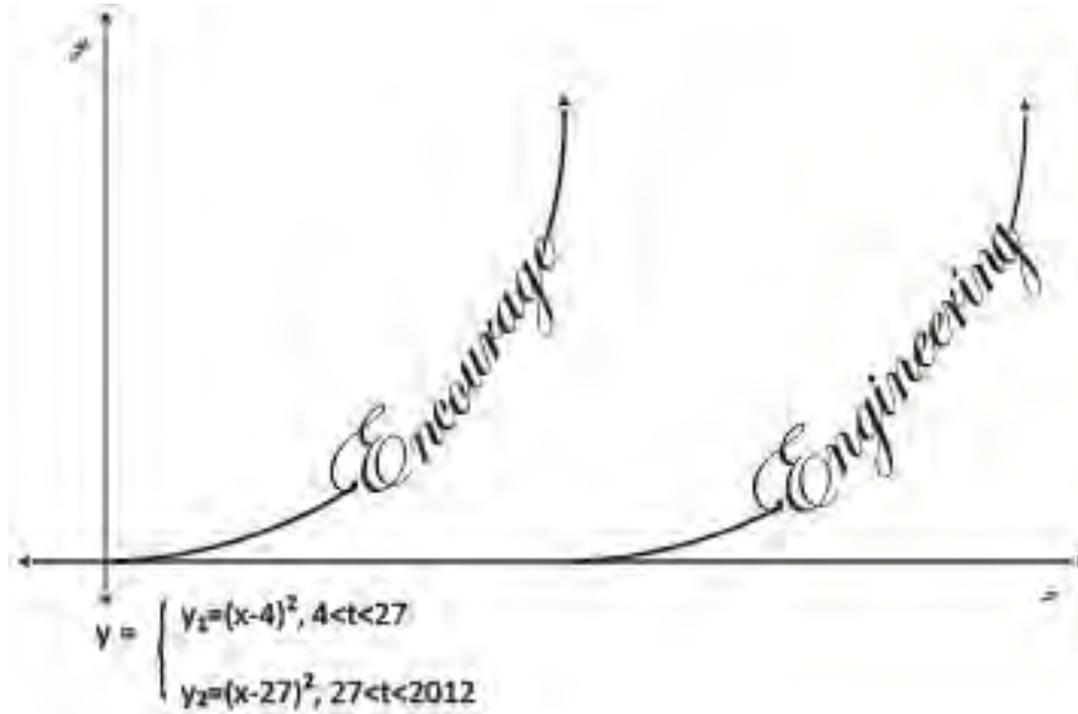


Solar® Turbines

A Caterpillar Company

CAP MEMBERS AT DECaf







Welcome Jacobs School Student Organization Leaders

Ludovic Vincent, PhD BIOENG'14

**Academic Committee Chairman
Jacobs Graduate Student Council**



JACOBS INNOVATORS FORUM



JACOBS INNOVATORS FORUM

Topic: Modeling and Simulation

Wednesday, February 8th, 2012, 5:00-6:30 p.m.



Professor Raymond A. de Callafon, MAE

"From data to dynamic models for simulation, prediction and validation"

Matthew de Stadler, MAE

"High resolution simulation of the turbulent wake behind a sphere in a stratified fluid"

Matthew Gonzales, BE

"Patient-specific Models of Human Atrial Fibrillation"

Mehrdad Yazdani, ECE

"Convex Combination of Simple Bang-Bang Control Policies in Fast Human Movements"

RSVP

to lvincent@ucsd.edu
by Monday, February 6th

Hosted by

 UCSD | Graduate
Jacobs | Student Council

with support from the
Dean's Office



Ismael Muñoz Jr, BIOENG'15
IDEA Scholar



UCSD

+ ME





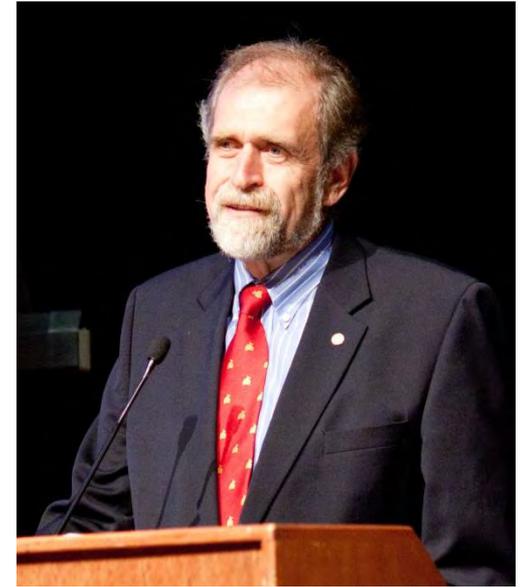






Dean's Report

Dean Frieder Seible Jacobs School of Engineering



UC San Diego #1 Second Consecutive Year



and



sort	Institution	Overall Score
1	University of California —San Diego (CA)*	100

sort	Institution	Overall Score
1	Univ. of California, San Diego*	100



UC San Diego #1



Strength in:

- Social Mobility
- Research
- Service

sort	Institution	Overall Score
1	University of California —San Diego (CA)*	100
2	University of California —Los Angeles (CA)*	99
3	University of California —Berkeley (CA)*	98
4	Stanford University (CA)	93
5	University of California —Riverside (CA)*	85
6	Harvard University (MA)	83
7	Case Western Reserve University (OH)	83
8	University of California —Davis (CA)*	81
9	Jackson State University (MS)*	78
10	University of Michigan —Ann Arbor (MI)*	77

Jacobs School Recognized for Excellence in Diversity and Inclusion

An individual, a center, and a committee each earned 2011 Diversity Awards



CSE Prof. Jeanne Ferrante,
Associate Dean at the Jacobs
School and Associate Vice
Chancellor for Faculty Equity



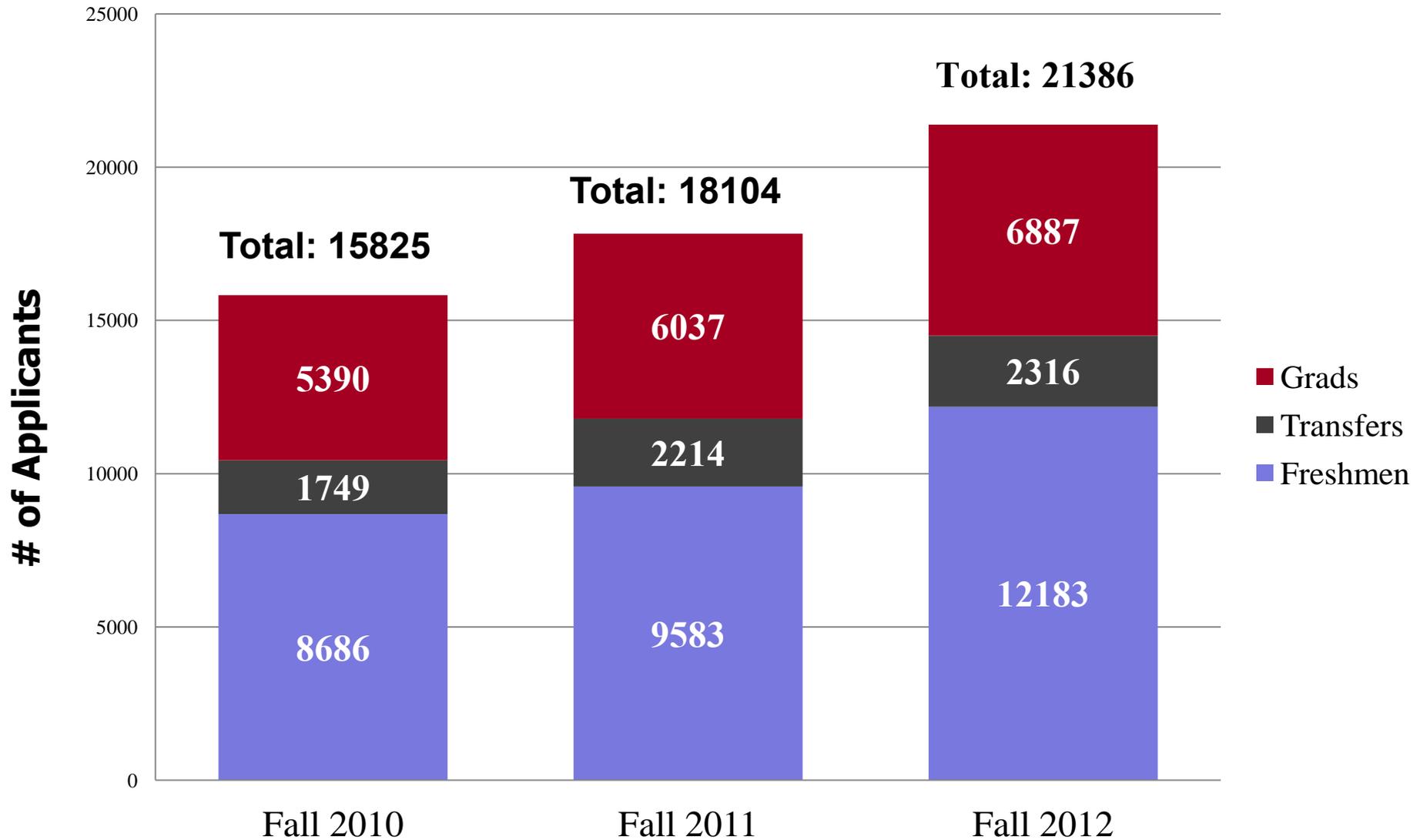
IDEA Scholars at Summer PrEP
program, one of several new
programs from the IDEA Center to
recruit, retain, and reward
underrepresented students at the
Jacobs School



SE Prof. Ahmed Elgamal, co-
chair of the 2010-11 school-wide
Excellence Search Committee

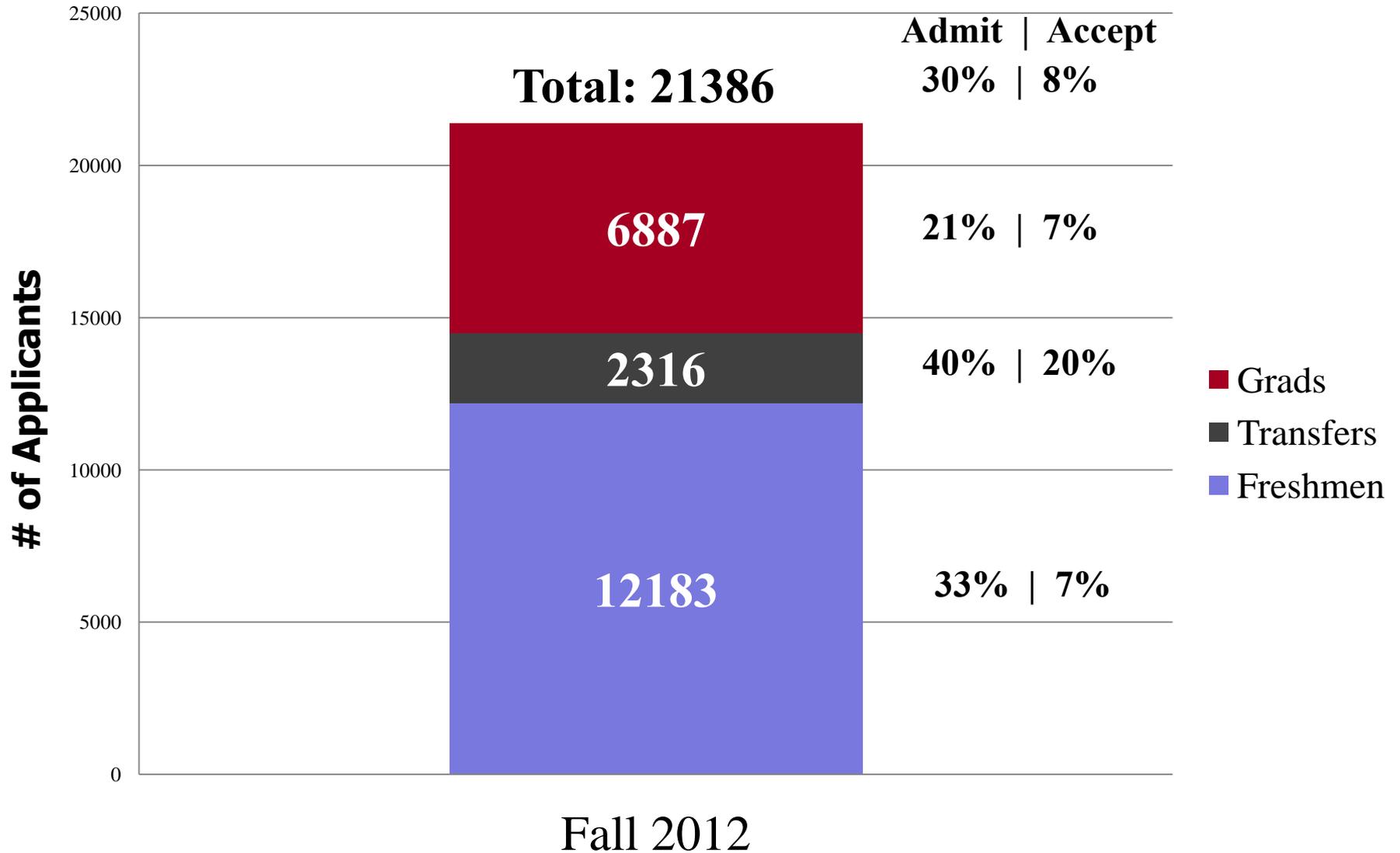
Jacobs School Applications Increase Continues

Applications (Academic Years '10, '11, '12)



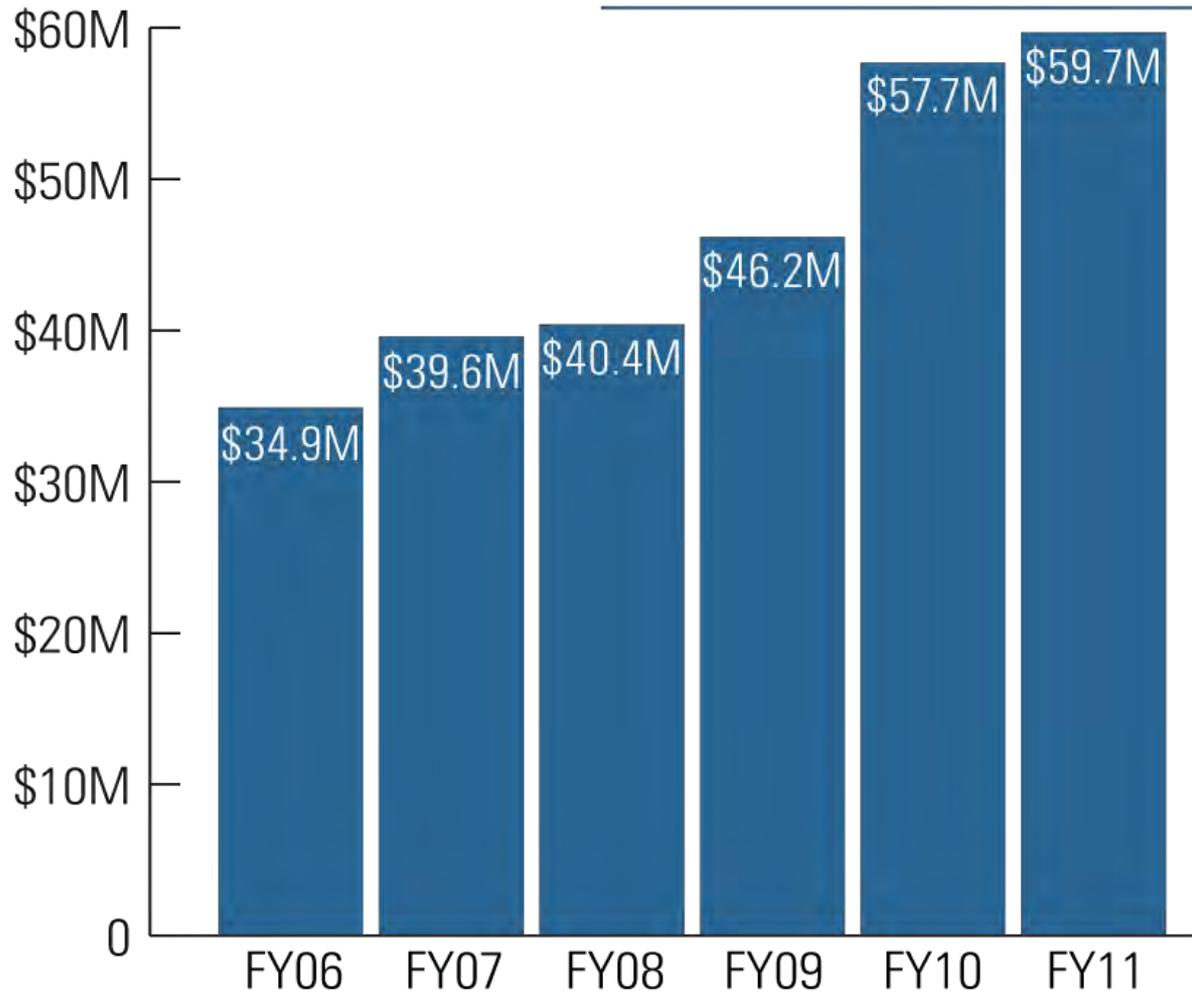
Jacobs School Applications Increase Continues

2012 Applications



Jacobs School Research Partnership With Industry

In FY11, 41% of research expenditures came from industry/private funding



Total Jacobs Research Expenditures rise from \$144M to \$147M in from FY'10 to FY'11

Jacobs School Research Partnership With Industry



Fellow Mentor Advisor (FMA) Sponsorship



**1 Faculty
Advisor**



1 Student Fellow



**1 Industry
Mentor**

Professor in Practice

New Opportunity at UCSD for Industry Executives

Goals:

- Continue meaningful engagement on campus outside industry role
- Avail faculty and students of industry leader's experience
- Increase industry involvement in both the Academies and Universities
 - e.g. NAE targets 30% Academics, 10% Government, 60% Industry

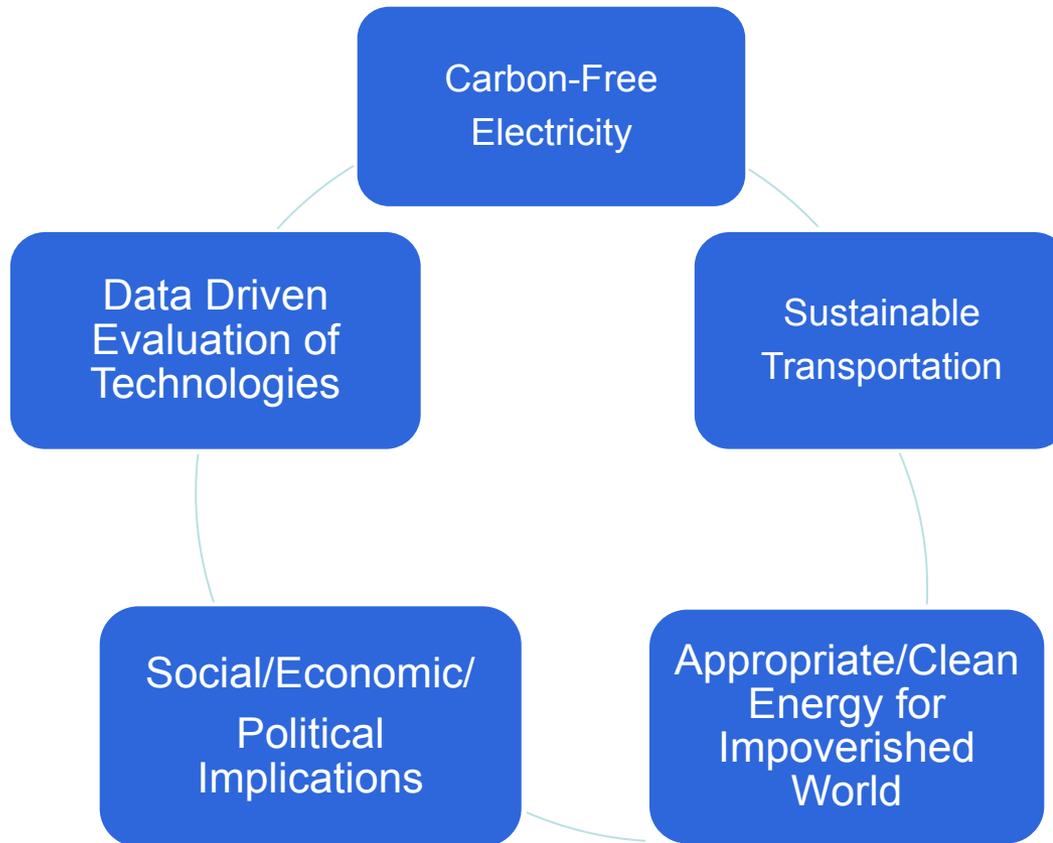


A photograph of a modern university building with large glass windows and a courtyard with people sitting on a bench. The text is overlaid on the image.

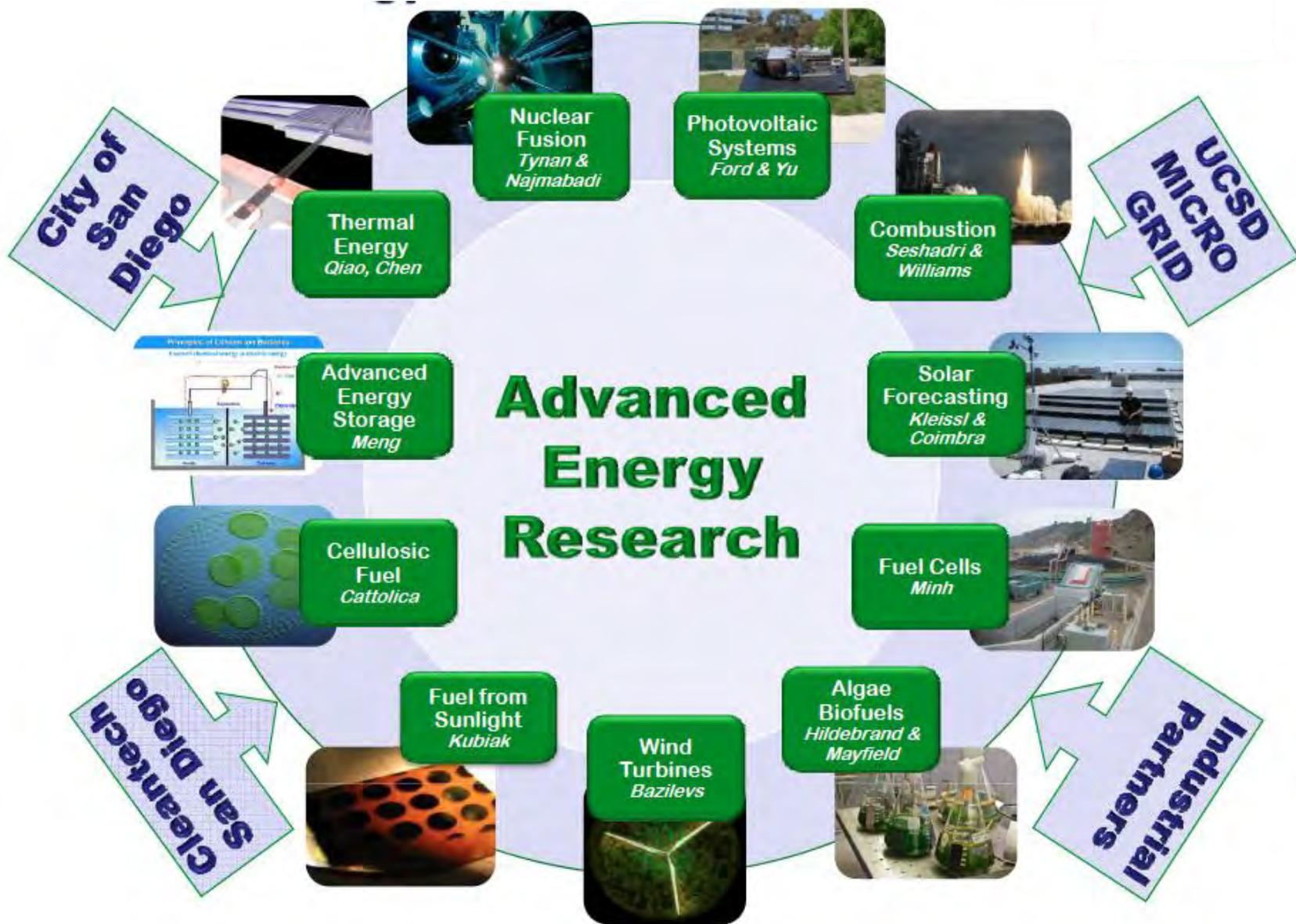
The UCSD Microgrid
A Living Laboratory
Showing the Future of Electricity ... Today

UCSD Advanced Energy Initiative

Make ground-breaking discoveries and innovations in energy production and use to meet the energy needs of humanity in a clean and sustainable manner; and partner to move those discoveries into the marketplace.



Current UCSD funding for energy-related research=\$20M/Year



Connecting Research to the Campus Testbeds

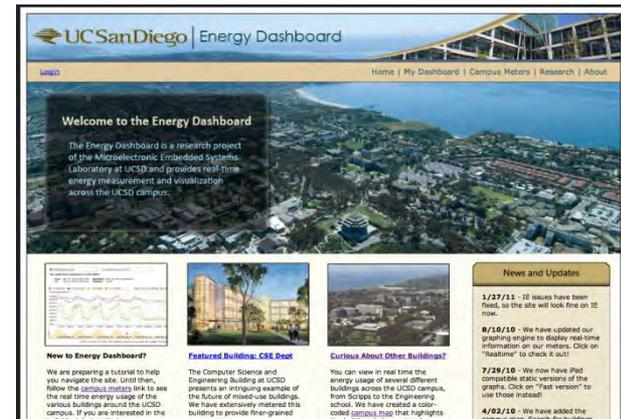
Solar PV



Forecasting



Energy Storage



Power Analytics

Use Campus to Test, Develop, Evaluate & Enable High Reliability, High Penetration Renewably Generated Electricity



10 YEARS

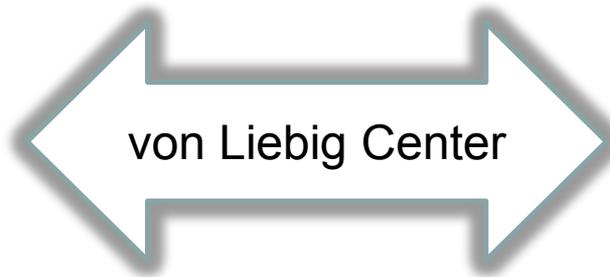
entrepreneurism

Von Liebig Center Accelerates Innovation

improve innovation quality and probability of commercialization



University Discoveries



Commercial Development

Proof of Concept Grants

Business Mentors

Entrepreneurial Culture

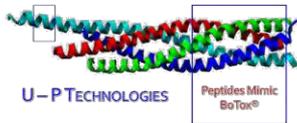
Collaboration with the Region's Ecosystem

Entrepreneurial Education

32 companies, one non profit

\$100 million invested

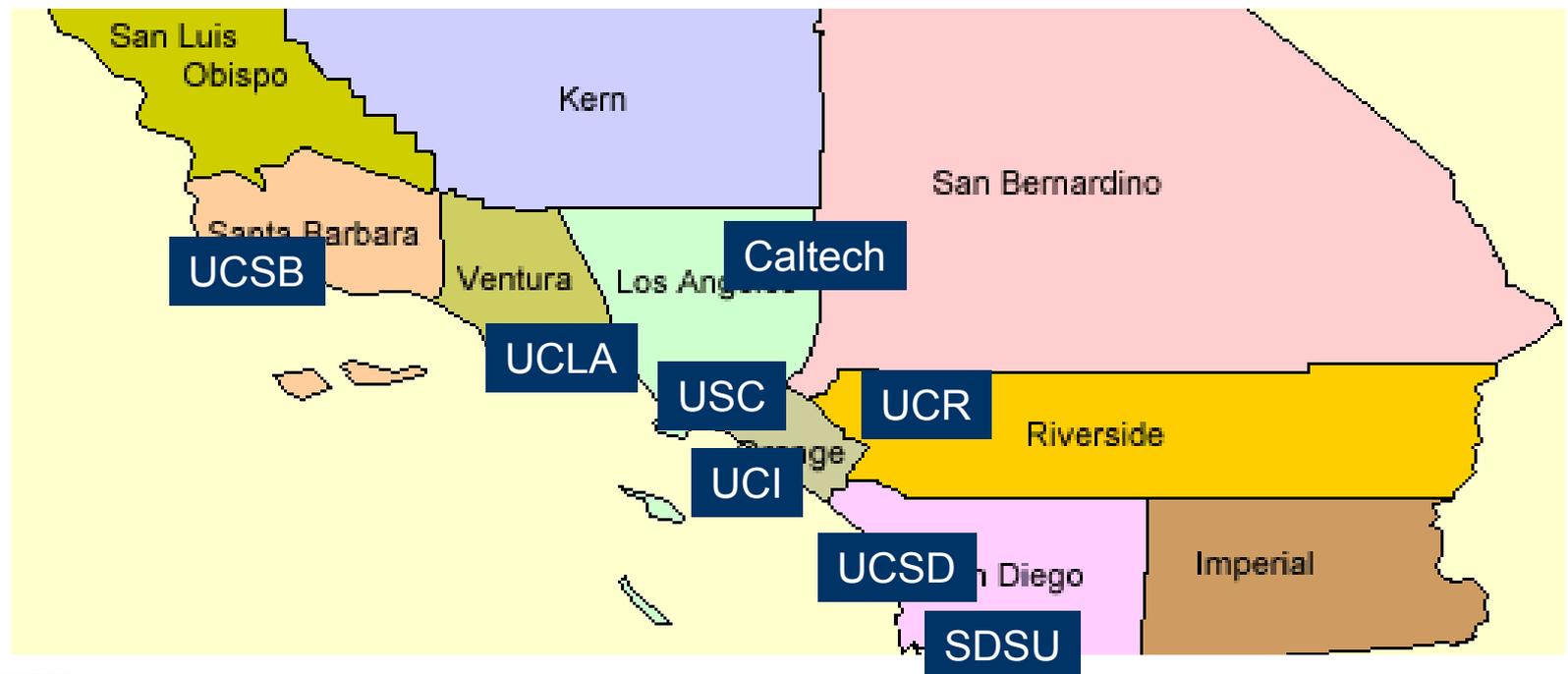
200+ jobs



2012 DOE Renewable Energy Technology: Regional Expansion of von Liebig Program

Call For Proposals: January 2012

From Open Solicitations to Jacobs Faculty only to
Topical solicitations open to industry university teams across the region



TIP Sponsors: Highly Satisfied

100% would host a TIP team again

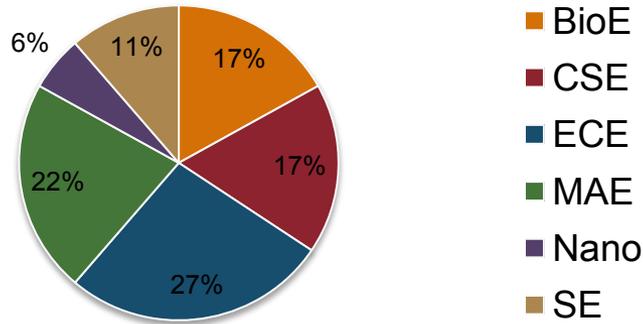


"I set out a wish list and was amazed at the team's velocity. I ask them to look at a technology, and they fearlessly make it happen with no handholding."

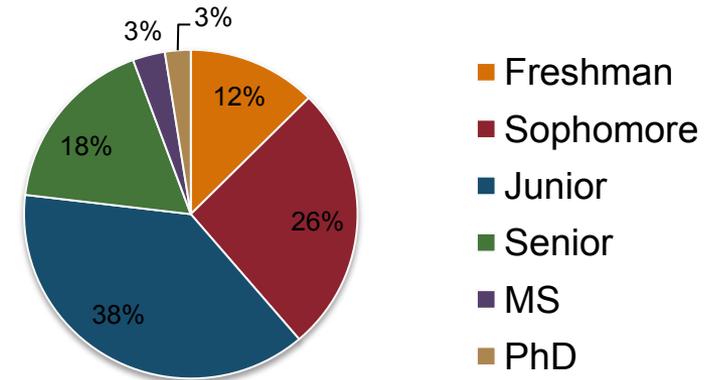
- **Derek Poulin,**
Mitchell International

2012 Summer Team Internship Program off to quick start!

TIP FEST Students in Attendance by Department



TIP FEST Students in Attendance by Year



TIP 2012 Sponsors thus far include:



and you!

Sponsors: We heard you!



We're taking action:

- ✓ Simplified process for hiring managers
- ✓ Integrated and streamlined web tools to scale program growth
- ✓ Engage CAP partners for technical interview preparation
- ✓ Working with IDEA Center to promote TIP to underrepresented engineering students
- ✓ Interviewing skills workshops

Distinguished Faculty Presentation



Professor Todd Coleman
Bioengineering,
Electrical and Computer Engineering

"Wireless tattoo electronics for biomedical and consumer products applications"

CAP Business



Anne O'Donnell
Director
Corporate Affiliates Program (CAP)

Welcome NEW CAP Team Member!



Faye Kurpanek
Program Manager
Executive Education

RESEARCH EXPO

Igniting Innovation

Thursday April 12, 2012

CAP Members receive 2 for 1 admission Call for Expo Judges

1:30P – 4:30P

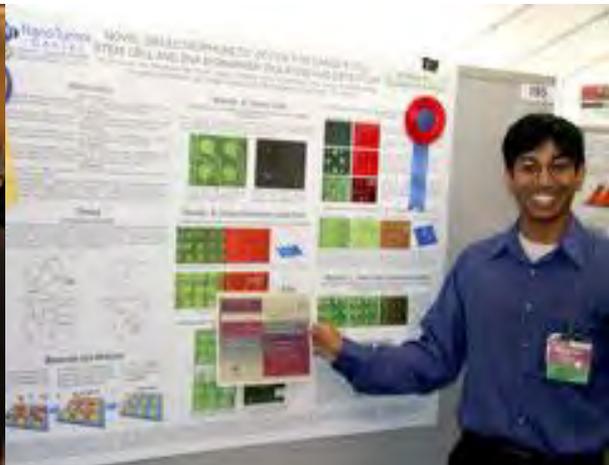
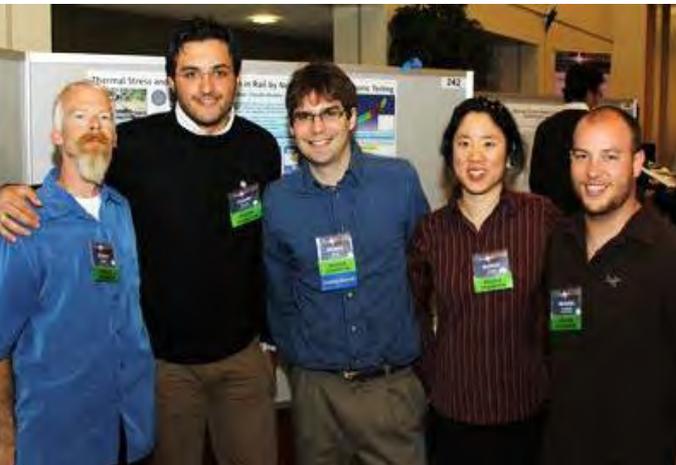
Poster Sessions

2:30P – 4:30P

Faculty Research Talks

4:30P – 6:00P

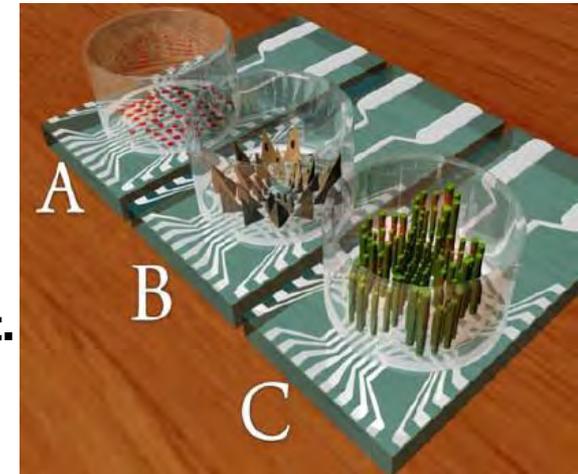
Awards Presentation and Networking Reception



NSF ERC Site Visit March 1, 2012

Engineering Research Center (ERC) NanoMACHs – Nano Manufacturing

- **\$18.5 M over five years with five year renewal option**
- **UCSD teamed with UT El Paso**
- **Diversity and K-12 education feature**
- **Commercialization a priority 'translational medicine'**
- **Examples from work in Four thrust areas:**
 - **Functional 3D Cardiac tissue**
 - **Battery-less pacemaker and self powered drug delivery implants**
 - **Self powered sensors and actuators**
 - **3D chemical nano-sensor arrays for monitoring of processes in tissues**
- **Outstanding opportunity for our newest engineering dept.**



Next week:

Jacobs School will celebrate **FOUR**
Faculty who will be inducted into
National Academies....stay tuned!

We do know one who has earned this honor.....



中國工程院

CHINESE **A**CADEMY OF **E**NGINEERING





 UCSD
Jacobs | School of
Engineering