

## UC Santa Barbara Receives Grand Challenges Explorations Funding

**UC Santa Barbara Computer Science researchers receive \$100,000 grant from the Bill & Melinda Gates Foundation to develop a wireless technology system and immunization database for rural populations**



### NEWS RELEASE

Amr  
(Santa Barbara, CA) ? The University of California, Santa Barbara announced today that it will receive funding th  
rough Grand Challenges Explorations, an initiative created by the Bill & Melinda Gates Foundation that  
enables researchers worldwide to test unorthodox ideas that address persistent health and development  
challenges. Professors [Elizabeth Belding](#) and [Amr El Abbadi](#) in the Computer Science Department will pursue  
Elizabeth Belding -  
Belding -

UCSB  
Grand Challenges Explorations funds scientists and researchers worldwide to explore ideas that can break the  
mold in how we solve persistent global health and development challenges. Professor Belding?s project is one of  
110 Grand Challenges Explorations grants announced today.

?We believe in the power of innovation?that a single bold idea can pioneer solutions to our greatest health and deve  
lopment challenges,? said Chris Wilson, Director of Global Health Discovery for the Bill & Melinda Gates Fo  
undation. ?Grand Challenges Explorations seeks to identify and fund these new ideas wherever they come fr  
om, allowing scientists, innovators and entrepreneurs to pursue the kinds of creative ideas and novel  
approaches that could help to accelerate the end of polio, cure HIV infection or improve sanitation.?

Projects that are receiving funding show promise in tackling priority global health issues where solutions do  
not yet exist. This includes finding effective methods to eliminate or control infectious diseases such as polio  
and HIV as well as discovering new sanitation technologies. To learn more about Grand Challenges  
Explorations, visit [www.grandchallenges.org](http://www.grandchallenges.org).

The ImmuNet project will develop a low-cost local cellular architecture and with an integrated information  
distribution system and an underlying database that allows rapid determination of immune status; reliable  
updates to vaccinations records; and quick, targeted dissemination of vaccination availability in rural regions.  
ImmuNet provides a technical solution that correlates up-to-date vaccine status of all persons in a coverage  
area with family relationship and biometric data and tracks human behavior to aid in rapid, prioritized  
immunization of infants and children. ImmunNet facilitates dissemination of vaccination-related information to  
rural residents through free local voice and data cellular connectivity provided to existing, unmodified cell  
phones. This is particularly critical in areas where cellular connectivity is not currently available.

"We are thrilled to receive this award from the Gates Foundation, and are very excited about this project.  
Technology brings empowerment to people in many ways, and health care is one of the primary areas that can  
improve quality of life,? said Elizabeth Belding, co-principal investigator and professor of Computer Science at UC

SB. "The development of ImmuNet is a key example of how computer science can be applied to a humanitarian cause for widespread benefit to many people, particularly, as targeted by this award, to infants and children."

Principal investigators Belding and El Abbadi are full professors with the Department of Computer Science at UC Santa Barbara. Professor Belding's research focuses on mobile networking, and particularly on wireless network solutions for developing and underdeveloped regions worldwide. She has a number of partnerships with organizations in South Africa and Zambia, where she is working to develop solutions that bridge the digital divide and bring Internet connectivity to rural residents. Professor Belding is currently the Vice Chair of the Computer Science Department. Professor El Abbadi's research focus is on data management and distributed systems, with recent interest in cloud computing and data dissemination in on-line social networks. Professor El Abbadi is an ACM Fellow and a past Chair of the Computer Science Department.

### **About Grand Challenges Explorations**

Grand Challenges Explorations is a US\$100 million initiative funded by the Bill & Melinda Gates Foundation. Launched in 2008, Grand Challenge Explorations grants have already been awarded to nearly 500 researchers from over 40 countries. The grant program is open to anyone from any discipline and from any organization. The initiative uses an agile, accelerated grant-making process with short, two-page online applications and no preliminary data required. Initial grants of \$100,000 are awarded two times a year. Successful projects have an opportunity to receive a follow-on grant of up to US\$1 million.

### **About UCSB's Department of Computer Science**

The Department of Computer Science at UC Santa Barbara is one of five departments within the College of Engineering. With 34 faculty and an annual research budget of more than \$10 million, the Department is committed to education and advancing the state-of-the-art in research across a broad range of disciplines, from foundational concepts in Computer Science to improving the technology in our everyday lives. The Department of Computer Science resides within a unique community and contributes to the field in ways that no other department can match. For more information and to learn more about work within the Department, contact the Department Chair, Professor Subhash Suri at (805) 893-8856 or [suri@cs.ucsb.edu](mailto:suri@cs.ucsb.edu).

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Press inquiries - contact:

Melissa Van De Werfhorst

Communications Manager

College of Engineering

(805) 893-4301

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

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### **Images**



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## **Media Contact**

Melissa Van De Werfhorst

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

(805) 893-4301

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