



**Einstein Stiftung Berlin**  
**Einstein Foundation Berlin**

MEETING EINSTEIN LECTURES

# Who are we and if so, why?

21<sup>st</sup> March 2012, 7 pm

Die Hörsaalruine, Charitéplatz 1, 10117 Berlin

# Who are we and if so, why?

## Challenges of Neuroscience

We have explored almost the entire surface of the earth, have been to the moon and manned space flights to Mars are being planned. But in the exploration of our innermost being, our brain, we are only just at the beginning. Einstein Visiting Fellow Roger Traub invites you on a journey into the brain, explains the challenges research is facing and what route he takes to get to the bottom of the secrets.

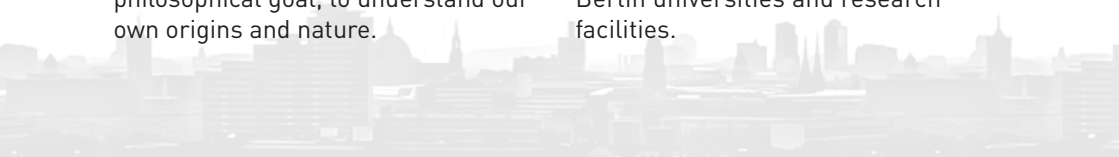
### The important goals of Neuroscience are:

First of all clinical, to improve the prevention and treatment of neuropsychiatric disorders. Second technological, to gather hints how we might imitate brain functions in intelligent artifacts and software. And third, the underlying philosophical goal, to understand our own origins and nature.

Why are these goals so difficult to achieve, despite extreme efforts by tens of thousands of researchers? Why is it so hard to understand the brain? According to Roger Traub these goals require that that we should be able to relate “psychological” functions to the behaviors of large networks of cells. How? By expressing the properties and connections of these networks in equations and in a mathematical language.

### Einstein Visiting Fellow

The aim of the funding program “Einstein Visiting Fellow” of the Einstein Foundation Berlin is to integrate outstanding foreign scientists into the Berlin research landscape in order to strengthen the international profile of the Berlin universities and research facilities.



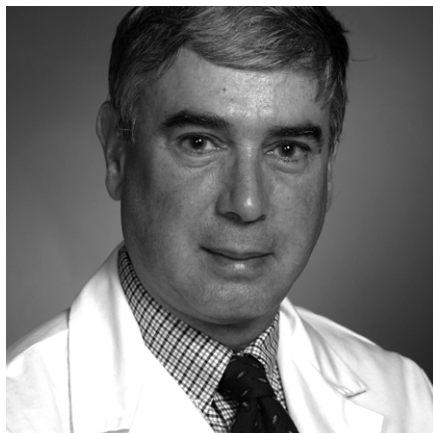
# Roger Traub

Roger Traub has been Einstein Visiting Fellow since December 2010 and works within the cluster of excellence “NeuroCure” at the Charité Universitätsmedizin Berlin.

He studied mathematics at Princeton University, New Jersey, USA, and then completed his medical studies at the University of Pennsylvania.

Roger Traub works as a research member for IBM at the Watson Research Center in New York. In addition, he is Adjunct Professor of Neurology at the Columbia University New York.

The neurologist is an expert in the computer simulation of circuits between cortical neurons, which are used for example in the researching of epilepsy. Traub is one of the most prestigious researchers in his field.



## Programme

6:30 pm Admission  
7:00 pm Welcome  
7:15 pm Lecture  
8:30 pm Reception

After the lecture you will have the opportunity to visit the exhibition of the “Berlin Medical Historical Museum”.

Please register at  
[www.einsteinfoundation.de](http://www.einsteinfoundation.de)

# MEETING EINSTEIN LECTURES

Outstanding academics are exploring undiscovered areas of science and present their groundbreaking findings to a broad audience at the Meeting Einstein Lectures.

## Next Lectures

**24<sup>th</sup> April 2012**

Craig Calhoun, New York University/LSE

**6<sup>th</sup> June 2012**

Adele Goldberg, Princeton University

**9<sup>th</sup> July 2012**

Ray Dolan, University College London

## Contact

**Einstein Foundation Berlin**

Jägerstraße 22/23  
10117 Berlin

T: +49 (0)30-20370-228

F: +49 (0)30-20370-377

[contact@EinsteinFoundation.de](mailto:contact@EinsteinFoundation.de)  
[www.einsteinfoundation.de](http://www.einsteinfoundation.de)

## Location

**Die Hörsaalruine / Berliner  
Medizinhistorisches Museum**

Campus Charité Mitte  
Charitéplatz 1, 10117 Berlin

