



# CDB SEMINAR

## Sheng Ding

Departments of Chemistry and Cell Biology, The Scripps Research Institute

Wednesday, September 13

16:00~17:00 A7F CDB Conference Room

## Chemical and Functional Genomic Approaches Toward Regenerative Medicine

### Summary

Recent advances in stem cell biology may make possible new approaches for the treatment of a number of diseases. Such approaches could involve cell replacement therapy and/or drug treatment to stimulate the body's own regenerative capabilities. These two approaches will require identification of renewable cell sources of functional cells, an improved ability to manipulate stem cell proliferation and differentiation, as well as a better understanding of the signaling pathways that control their fate. Cell-based phenotypic and pathway-specific screens of synthetic compounds have recently provided a number of small molecules that can be used to selectively control stem cell fate. Such molecules will likely provide new insights into stem cell biology, and may ultimately contribute to effective medicines for tissue repair and regeneration.

### Speaker profile

Sheng Ding did his undergraduate at [California Institute of Technology](#) with Drs. Grubbs, Rees, Goddard, Myers and Chan. His work with Dr. Grubbs (2005 Nobel Laureate in Chemistry) resulted in the "the second generation of Grubbs Catalyst", and work with Dr. Rees resulted in a 0.7 Å DNA structure. After he graduated from Caltech in 1999, he joined Dr. Peter Schultz lab at the [Scripps Research Institute](#) to conduct his Ph.D. studies, which opened up new avenues for developing future regenerative medicine. He then stayed and joined the faculty of the Chemistry and Cell Biology Departments at Scripps as an Assistant Professor in late 2003. Ding is also a scientific advisor of the [Genomics Institute of the Novartis Research Foundation \(GNF\)](#) in La Jolla, CA.

### Host:

#### Takumi Era

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