

**THE DONALD K. BUFFMIRE  
VISITING LECTURESHIP IN MEDICINE**

# “Towards Heart Stem Cell Therapeutics”

**KENNETH R. CHIEN, MD, PhD**

*Director, Massachusetts General Hospital  
Cardiovascular Research Center  
Charles Addison and Elizabeth Ann Sanders Professor  
Department of Stem Cell and Regenerative Biology  
Harvard University  
Harvard Stem Cell Institute*



**TUCSON - March 6, 2012**

*in conjunction with the  
Frontiers in Medical Research Seminar*

Kiewit Auditorium  
Arizona Cancer Center  
Noon – Lecture  
1:00-1:30 pm – Meet and Greet  
Light Lunch Available

**PHOENIX - March 7, 2012**

*in conjunction with the  
Student Research Day\**

Virginia G. Piper Auditorium  
College of Medicine-Phoenix  
600 E. Van Buren Street, Phoenix  
4:00 pm – Reception and  
Viewing of Posters\*  
5:00 pm - Lecture

**Webcast: [streaming.biocom.arizona.edu/home](http://streaming.biocom.arizona.edu/home)**

*The Donald K.  
Buffmire Visiting  
Lectureship in  
Medicine, begun in  
1997, continues the  
Flinn Foundation’s  
commitment to  
bringing to Arizona  
leading practitioners  
and thinkers in the  
medical field.*

Dr. Kenneth Chien is a world-recognized leader in cardiovascular science and medicine. He has a strong interest in physician-scientist training, having served as the Director of the Institute for Molecular Medicine at the University of California at San Diego and a professor at the Salk Institute. Dr. Chien’s laboratory has generated, for the first time, a fully mature strip of ventricular muscle from ES cells. This approach opens the path towards the generation of heart parts for end stage cardiovascular diseases.



Over the past decade, major advances have been made in the arena of stem cell biology. Our ability to convert skin cells into human stem cells, that in turn, can generate almost any human cell type, has begun to revolutionize our ability to study human disease at a cellular level. At the same time, many hurdles exist to convert these remarkable scientific advances into major advances in clinical medicine, particularly for advanced forms of degenerative diseases. This lecture will highlight recent advances, challenges, and opportunities in the burgeoning field of regenerative medicine. Recent advances towards triggering a regenerative response in damaged heart muscle without the necessity of isolating stem cells themselves will be discussed. In this regard, chemically modified RNA that encodes a protein that can expand and differentiate rare adult human heart progenitors into new cardiovascular cells during myocardial infarction will be discussed, and the implications for other degenerative diseases of solid organs.

*\*The Class of 2012 will be present to discuss their posters marking the culmination of their four-year Scholarly Project.*

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For Phoenix lecture only, RSVP to Sheila Maddox by March 1 at [smaddox@email.arizona.edu](mailto:smaddox@email.arizona.edu) or (602) 827-2007.

For questions about the Tucson lecture, please contact Christy Bustillos, [cbustillos@email.arizona.edu](mailto:cbustillos@email.arizona.edu) or (520) 626-6177.