

# 2014 KSBMB Annual Meeting

*Integrating the Basis of Human Disease and Its Application*

May 14(Wed)-16(Fri), 2014 | COEX, Seoul, Korea

- Seminar: Grand Ballroom
- Exhibition & Poster Presentation: Hall B2



**KSBMB**  
Korean Society for Biochemistry and Molecular Biology



## Macrogen Woman Scientist Award

May 15 (Thu), 12:10-12:40, Rm 103



### Hyunsook Lee

Department of Biological Science, Seoul National University

Hyunsook Lee is interested in understanding the basis of chromosome instability in human disease. She did her Ph.D. in MRC, Lab. of Molecular Biology, Cambridge, UK. While then, she revealed the function of the tumor suppressor *BRCA2* and how the disruption of *BRCA2* leads to cancer in mice (Supervisor, Ashok Venkitaraman; Viva Examiner, Tim Hunt & Jon Pines). After her Ph.D., she received Wellcome Trust International prize Award for her postdoctoral fellowship in Harvard Medical School and the University of Washington, Seattle, US. As she thought to understand the origin of epithelial cancers, one must understand the developmental cues in determining the epithelia, she investigated the epidermal stem cell identity by p63 with David Kimelman. Her Ph.D. and postdoctoral experiences were quite different yet both productive and interlinked. When she established her own lab in Seoul National University, Dept. of Biological Sciences in 2004, she tried to incorporate her multidisciplinary experiences using different model systems. Her question is to understand the basis of chromosome instability. For this, she studies the regulation of mitosis in one end. She identified that the spindle assembly checkpoint protein BubR1 is acetylated/deacetylated in mitosis, which is crucial for both checkpoint function and chromosome congression. The finding that *BRCA2* is the scaffold bringing PCAF acetyltransferase to BubR1 contributed to the understanding of chromosome instability in *BRCA2*-mutated cancers. On the other end, she is interested in understanding the connection of telomere erosion with mitosis. Her group revealed that *BRCA2* is involved in the telomere replication homeostasis. She is modeling ALT (Alternative lengthening of telomeres) in mice and continues to understand the telomere-kinetochore signaling and chromosome instability in ALT cancers. As the corresponding author, she has published prominent papers in *Developmental Cell*, *Journal of Cell Biology*, and *EMBO J.* etc. She is a full professor of Biological Sciences in SNU and an Associate Editor of *Molecules and Cells*.

In order to empower and invigorate the research works by distinguished females in science and technology, this award was founded in May 2005.

The award committee elects two female candidates among PhD holders who demonstrated excellent research works and of Korean citizen - by evaluating their research works, recommendations and resumes, after which the final winner is elected. This award is funded by Macrogen Inc. sponsorship.