

**TOSHIHIRO AKAIKE****Principal Investigator/Director,**

FAIS Biomaterials Center for Regenerative

Medical Engineering

24-16, Kasuga 3-Chome,

Tsukuba, Ibaraki 305-0821, Japan

Phone: +81-29-858-7520

Email: akaike@fais.or.jp

**Education and Carrier:**

2014- present: Principal Investigator, Director

FAIS Biomaterials Center for Regenerative Medical Engineering, Tsukuba, Japan.

2012- 2014: Professor Emeritus, Professor of Donated Chair,

Biomaterials Design for Regenerative Engineering, Tokyo Institute of Technology, Japan.

2009 to 2012: Professor, Frontier Research Center &amp; Graduate School of Bioscience and

Biotechnology, Tokyo Institute of Technology, Japan.

2009 to present: Visiting Professor, School of Medicine, Tsinghua University, China.

2009 to present: Visiting Professor, Nankai University, China.

1990 to 2009: Professor, Graduate School of Bioscience and Biotechnology, Dept. of Bio-  
molecular Engineering, Tokyo Institute of Technology, Japan,

2000 to 2003: Professor, Graduate School of Medicine, Shinshu University, Nagano, Japan.

1989 to 1995: Project Leader, Akaike Project “High-functional Membrane for Molecular  
Recognition”, Kanagawa Academy of Sci. & Tech., Japan.1980 to 1990: Associate Professor, Dept of Material Systems Engineering, Faculty of Engineering,  
Tokyo University of Agriculture and Technology. Japan.**Honors:**

Tokyo Tech Award for the Best Teacher (2007)

Fellow, Biomaterials Science and Engineering, The International Union of Societies for Biomaterials  
Science and Engineering (2004)

Jorge Heller Journal of Controlled Release/CRS Outstanding Paper Award (1997)

Scientific Achievement Award, The Japanese Society for Biomaterials (1989)

**Selected Publications**

1. Kakon N, Adnan N, Kutsuzawa K, Akaike T. Cadherin-Fc Chimeric Protein-Based Biomaterials: Advancing Stem Cell Technology and Regenerative Medicine towards Application. *Stem Cell Technology*, DOI: 10.5772/58287, (2014).
2. Xu J, Li S, Hu F, Zhu C, Zhang Y, Zhao W, Akaike T, Yang J. Artificial biomimicking matrix modifications of nanofibrous scaffolds by hE-cadherin-Fc fusion protein to promote human mesenchymal stem cells adhesion and proliferation. *J Nanosci Nanotechnol.* 14(6):4007-13. (2014).
3. Mattias L, Haque A, Adnan N, Akaike T. The effects of artificial E-cadherin matrix-induced embryonic stem cell scattering on paxillin and RhoA activation via  $\alpha$ -catenin. *Biomaterials.* 35(8):2471-6. (2013).
4. Jovic D, Sakaue-Sawano A, Abe T, Cho CS, Nagaoka M, Miyawaki A, Toshihiro A. Direct observation of cell cycle progression in living mouse embryonic stem cell on an extracellular matrix of E-cadherin. *SpringerPlus*, 2:585 (2013).
5. Meng Q., Haque A, Hexing B. Akaike T., The differentiation and isolation of mouse embryonic stem cells toward hepatocytes using galactose-carrying substrata. *Biomaterials*, 33, 1414-27, (2012).
6. A. Haque, X-S. Yue, A. Motazedian, Y.Tagawa, T. Akaike Characterization and neural differentiation of mouse embryonic and induced pluripotent stem cells on cadherin-based substrata. *Biomaterials*, 33, 5094-106, (2012).