

## Isao KII

*CURRICULUM VITAE*  
E-mail; isao.kii@riken.jp

Degree:

2005 Ph.D.  
Tokyo Institute of Technology,  
Graduate School of Bioscience and Biotechnology

Education/Training:

2016-present **RIKEN Center for Life Science Technologies,  
Division of Bio-Function Dynamics Imaging,  
Imaging Application Group,  
Pathophysiological and Health Science Team**  
Senior Scientist  
Team Leader: Director Yasuyoshi Watanabe

2015-2016 **RIKEN Center for Life Science Technologies,  
Division of Bio-Function Dynamics Imaging,  
Imaging Application Group,  
Pathophysiological and Health Science Team**  
Research Scientist  
Team Leader: Director Yasuyoshi Watanabe

2010-2015 **Anatomy and Developmental Biology, Basic Medicine,  
Graduate School of Medicine, Kyoto University**  
Research Assistant Professor  
Principle Investigator: Prof. Masatoshi Hagiwara

2010-2010 **Department of Functional Genomics, Medical Research  
Institute, Graduate School of Biomedical Science, Tokyo  
Medical and Dental University**  
Research Assistant Professor  
Principle Investigator: Prof. Masatoshi Hagiwara

2005-2010 **Department of Biological Information / Graduate School of  
Bioscience and Biotechnology, Tokyo Institute of Technology**  
Assistant Professor  
Principle Investigator: Prof. Akira Kudo

2000-2005 **Department of Biological Information / Graduate School of  
Bioscience and Biotechnology, Tokyo Institute of Technology**  
Graduate Student  
Supervisor: Prof. Akira Kudo

1996-2000 **School of Bioscience and Biotechnology,  
Tokyo Institute of Technology**  
Student

## 2016.4.23

### Research Experience:

- 2015-present **RIKEN Center for Life Science Technologies,  
Division of Bio-Function Dynamics Imaging,  
Imaging Application Group,  
Pathophysiological and Health Science Team**  
Molecular, Cellular, and Chemical Biology
- 2010-2015 **Anatomy and Developmental Biology, Basic Medicine,  
Graduate School of Medicine, Kyoto University**  
Molecular, Cellular, and Chemical Biology  
Principle Investigator: Prof. Masatoshi Hagiwara
- 2010-2010 **Department of Functional Genomics, Medical Research  
Institute, Graduate School of Biomedical Science,  
Tokyo Medical and Dental University**  
Molecular, Cellular, and Chemical Biology  
Principle Investigator: Prof. Masatoshi Hagiwara
- 2005-2010 **Department of Biological Information / Graduate School of  
Bioscience and Biotechnology,  
Tokyo Institute of Technology**  
Molecular, Cellular, and Developmental Biology  
Principle Investigator: Prof. Akira Kudo
- 2000-2005 **Department of Biological Information / Graduate School of  
Bioscience and Biotechnology, Tokyo Institute of  
Technology (as a graduate student)**  
Bone Cell Biology  
Advisor: Prof. Akira Kudo

### Honors:

- 2009 Travel Fellowship. The 3<sup>rd</sup> Mechanobiology Workshop. National University of Singapore, Singapore
- 2004 Young Investigator Award. 26th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, Washington, USA
- 2004 Young Investigator Award. 22th Annual Meeting of the Japanese Society for Bone and Mineral Research. Osaka, Japan

### Societies:

- The Molecular Biology Society of Japan  
The Japanese Society of Chemical Biology  
International Chemical Biology Society

Publications:

(Original papers)

30. **Kii I**,\* Sumida Y, Goto T, Sonamoto R, Okuno Y, Yoshida S, Kato-Sumida T, Koike Y, Abe M, Nonaka Y, Ikura T, Ito N, Shibuya H, Hosoya T, and Hagiwara M\* (2016)  
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*Nature Communications*. 7:11391.  
\*Co-corresponding author
29. **Kii I**,\* Nishiyama T, and Kudo A\* (2016)  
Periostin promotes secretion of fibronectin from the endoplasmic reticulum  
*Biochem Biophys Res Commun*. 470(4): 888-93  
\*Co-corresponding author
28. Sonamoto R, **Kii I**,\* Koike Y, Sumida Y, Kato-Sumida T, Okuno Y, Hosoya T, and Hagiwara M\* (2015)  
Identification of a DYRK1A Inhibitor that Induces Degradation of the Target Kinase using Co-chaperone CDC37 fused with Luciferase nanoKAZ  
*Scientific Reports*. 5:12728.  
\*Co-corresponding author
27. Ohnishi T, Yanazawa M, Sasahara T, Kitamura Y, Hiroaki H, Fukazawa Y, **Kii I**, Nishiyama T, Kakita A, Takeda H, Takeuchi A, Arai Y, Ito A, Komura H, Hirao H, Satomura K, Inoue M, Muramatsu S, Matsui K, Tada M, Sato M, Saijo E, Shigemitsu Y, Sakai S, Umetsu Y, Goda N, Takino N, Takahashi H, Hagiwara M, Sawasaki T, Iwasaki G, Nakamura Y, Nabeshima Y, Teplow DB, and Hoshi M (2015)  
Na,K-ATPase $\alpha$ 3 is a death target of Alzheimer patient amyloid- $\beta$  assembly  
*PNAS*. Jul 29. doi: 10.1073/pnas.1421182112.
26. Masaki S,\* **Kii I**,\* Sumida Y, Kato-Sumida T, Ogawa Y, Ito N, Nakamura M, Sonamoto R, Kataoka N, Hosoya T, and Hagiwara M. (2015)  
Design and synthesis of a potent inhibitor of class 1 DYRK kinases as a suppressor of adipogenesis.  
*Bioorganic & Medicinal Chemistry*. 23(15):4434-4441.  
\*Equal contribution
25. Morooka S, Hoshina M, **Kii I**, Okabe T, Kojima H, Inoue N, Okuno Y, Denawa M, Yoshida S, Fukuhara J, Ninomiya K, Ikura T, Furuya T, Nagano T, Noda K, Ishida S, Hosoya T, Ito N, Yoshimura N, and Hagiwara M. (2015)  
Identification of a Dual Inhibitor of SRPK1 and CK2 that Attenuates Pathological Angiogenesis of Macular Degeneration in Mice.  
*Mol Pharmacol*. 88(2):316-25.
24. Yamamoto M, Onogi H, **Kii I**, Yoshida S, Iida K, Sakai H, Abe M, Tsubota T, Ito N, Hosoya T, and Hagiwara M. (2014)  
CDK9 inhibitor FIT-039 prevents replication of multiple DNA viruses.  
*J Clin Invest*. 124(8):3479-3488.
23. Kurihara T, Sakurai E, Toyomoto M, **Kii I**, Kawamoto D, Asada T, Tanabe T, Yoshimura M, Hagiwara M, Miyata A. (2014)

- Alleviation of behavioral hypersensitivity in mouse models of inflammatory pain with two structurally different casein kinase 1 (CK1) inhibitors.  
*Mol Pain*. 10:17.
22. Kikuchi Y, Kunita A, Iwata C, Komura D, Nishiyama T, Shimazu K, Takeshita K, Shibahara J, **Kii I**, Morishita Y, Yashiro M, Hirakawa K, Miyazono K, Kudo A, Fukayama M, Kashima TG. (2014)  
The Niche Component Periostin Is Produced by Cancer-Associated Fibroblasts, Supporting Growth of Gastric Cancer through ERK Activation.  
*Am J Pathol*. 184(3):859-70.
  21. Sakai D, **Kii I**, Nakagawa K, Matsumoto HN, Takahashi M, et al. (2011)  
Remodeling of Actin Cytoskeleton in Mouse Periosteal Cells under Mechanical Loading Induces Periosteal Cell Proliferation during Bone Formation.  
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  20. Nishiyama, T., **Kii, I.**, Kashima, T.G., Kikuchi, Y., Ohazama, A., Shimazaki, M., Fukayama, M., Kudo, A. (2011)  
Delayed re-epithelialization in periostin-deficient mice during cutaneous wound healing  
*PLoS ONE* 6(4): e18410.
  19. Fujiwara, M., Kashima, T.G., Kunita, A., **Kii, I.**, Komura, D., Grigoriadis, A.E., Kudo, A., Aburatani, H., Fukayama, M. (2011).  
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*Tumour Biol* 32(3):611-22.
  18. **Kii, I.**,\* Shiraishi, A., Hiramatsu, T., Matsushita, T., Uekusa, H., Yoshida, S., Yamamoto, M., Kudo, A., Hagiwara, M., and Hosoya, T.\* (2010).  
Strain-promoted double-click reaction for chemical modification of azido-biomolecules.  
*Org Biomol Chem* 8, 4051-4055.  
\*Co-corresponding author
  17. Ogawa, Y., Nonaka, Y., Goto, T., Ohnishi, E., Hiramatsu, T., **Kii, I.**, Yoshida, M., Ikura, T., Onogi, H., Shibuya, H., et al. (2010).  
Development of a novel selective inhibitor of the Down syndrome-related kinase Dyrk1A.  
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  15. Maruhashi, T., **Kii, I.**, Saito, M., and Kudo, A. (2010).  
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14. Tanabe, H., Takayama, I., Nishiyama, T., Shimazaki, M., **Kii, I.**, Li, M., Amizuka, N., Katsube, K., and Kudo, A. (2010). Periostin associates with Notch1 precursor to maintain Notch1 expression under a stress condition in mouse cells. *PLoS One* 5, e12234.
  13. Takayama, I., **Kii, I.**, and Kudo, A. (2009). Expression, purification and characterization of soluble recombinant periostin protein produced by Escherichia coli. *J Biochem* 146, 713-723.
  12. Kashima, T.G., Nishiyama, T., Shimazu, K., Shimazaki, M., **Kii, I.**, Grigoriadis, A.E., Fukayama, M., and Kudo, A. (2009). Periostin, a novel marker of intramembranous ossification, is expressed in fibrous dysplasia and in c-Fos-overexpressing bone lesions. *Hum Pathol* 40, 226-237.
  11. Shimazaki, M., Nakamura, K., **Kii, I.**, Kashima, T., Amizuka, N., Li, M., Saito, M., Fukuda, K., Nishiyama, T., Kitajima, S., et al. (2008). Periostin is essential for cardiac healing after acute myocardial infarction. *J Exp Med* 205, 295-303.
  10. Kikuchi, Y., Kashima, T.G., Nishiyama, T., Shimazu, K., Morishita, Y., Shimazaki, M., **Kii, I.**, Horie, H., Nagai, H., Kudo, A., et al. (2008). Periostin is expressed in pericryptal fibroblasts and cancer-associated fibroblasts in the colon. *J Histochem Cytochem* 56, 753-764.
  9. Moriyama, A., **Kii, I.**, Sunabori, T., Kurihara, S., Takayama, I., Shimazaki, M., Tanabe, H., Oginuma, M., Fukayama, M., Matsuzaki, Y., et al. (2007). GFP transgenic mice reveal active canonical Wnt signal in neonatal brain and in adult liver and spleen. *Genesis* 45, 90-100.
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  7. Wakabayashi, K., Nakagawa, H., Adachi, T., **Kii, I.**, Kobatake, E., Kudo, A., and Ishikawa, T. (2006). Identification of cysteine residues critically involved in homodimer formation and protein expression of human ATP-binding cassette transporter ABCG2: a new approach using the flp recombinase system. *J Exp Ther Oncol* 5, 205-222.
  6. Nishiyama, T., **Kii, I.**, and Kudo, A. (2004). Inactivation of Rho/ROCK signaling is crucial for the nuclear accumulation of FKHR and myoblast fusion.

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5. **Kii, I.**, Amizuka, N., Shimomura, J., Saga, Y., and Kudo, A. (2004).  
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4. Suzuki, H., Amizuka, N., **Kii, I.**, Kawano, Y., Nozawa-Inoue, K., Suzuki, A., Yoshie, H., Kudo, A., and Maeda, T. (2004).  
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3. Mitomo, H., Kato, R., Ito, A., Kasamatsu, S., Ikegami, Y., **Kii, I.**, Kudo, A., Kobatake, E., Sumino, Y., and Ishikawa, T. (2003).  
A functional study on polymorphism of the ATP-binding cassette transporter ABCG2: critical role of arginine-482 in methotrexate transport.  
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2. Kawaguchi, J., Azuma, Y., Hoshi, K., **Kii, I.**, Takeshita, S., Ohta, T., Ozawa, H., Takeichi, M., Chisaka, O., and Kudo, A. (2001).  
Targeted disruption of cadherin-11 leads to a reduction in bone density in calvaria and long bone metaphyses.  
*J Bone Miner Res* 16, 1265-1271.
1. Kawaguchi, J., **Kii, I.**, Sugiyama, Y., Takeshita, S., and Kudo, A. (2001).  
The transition of cadherin expression in osteoblast differentiation from mesenchymal cells: consistent expression of cadherin-11 in osteoblast lineage.  
*J Bone Miner Res* 16, 260-269.