

Curriculum Vitae (September 6, 2016)

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Education:

Ph.D.; Graduate School of Engineering, Osaka Prefecture University, Osaka, Japan
(2005)

M.S.; Interdisciplinary Graduate School of Science and Technology, Kinki University,
Osaka, Japan (2002)

B.S.; Department of Nuclear Engineering, Kinki University, Osaka, Japan (2000)

Research and professional experience:

April 2005 – March 2007

Postdoctoral researcher, Biomaterial Center, National Institute of Materials and
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April 2007 – March 2010

Postdoctoral researcher, Department of Biomedical Engineering, National
Cerebral and Cardiovascular Center Research Institute, Osaka, Japan

April 2010 – March 2014

Research staff, Department of Biomedical Engineering, National Cerebral and
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April 2015 – present

Associate Professor, Department of Chemistry and Materials Engineering,
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Awards:

- 2011 Yoshimi Memorial T.M.P Grant Award, Japanese Society for Artificial Organs (November 2011)
- Korea-Japan Biomaterials Research Young Investigator's Award, Japanese Society for Biomaterials (November, 2012)
- 2012 National Cerebral and Cardiovascular Research Institute Young Investigator's Award, National Cerebral and Cardiovascular Research Institute (January 2013)
- 2013 Young Investigator's Award, The Japanese Society for Regenerative Medicine

Membership of academic societies:

Japanese Society for Biomaterials (Councilor)
Japanese Society for Artificial Organs
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The Society of Polymer Science, Japan
The Chemical Society of Japan
The Society of Fiber Science and Technology, Japan
The Japan Society of Drug Delivery System
The Japanese Peptide Society
Japanese Society of Radiation Chemistry

Publications:

1. Sachiro Kakinoki, Kouji Yukutake, Isao Kaetsu, Kumao Uchida, Kouichi Sutani, Takuya Kosumi, Norio Usui, Takeo Yonekura, Akio Kubota, Harumasa Ohyanagi The preparation of the chronic hyper-endotoxemia experimental animal model by means of a drug delivery system, *J. Control. Rel.*, 75, 167-172 (2001).
2. Takuya Kosumi, Norio Usui, Akio Kubota, Hironori Hoki, Katsuji Yamauchi, Takaji Nogami, Harumasa Ohyanagi, Takeo Yonekura, Sachiro Kakinoki, Isao Kaetsu, Application of a drug delivery system in a novel rat model of chronic hyperendotoxemia, *Pediatr Surg Int* 17, 321-325 (2001).
3. Sachiro Kakinoki, Chikao Yasuda, Isao Kaetsu, Kumao Uchida, Kouji Yukutake, Masashi Nakayama, Satoru Fujiie, Daisuke Kuroda, Michio Kato, Harumasa Ohyanagi, Preparation of poly-lactic acid microspheres containing

the angiogenesis inhibitor TNP-470 with medium-chain triglyceride and the in vitro evaluation of release profiles, *Eur. J. Pharm. Biopharm.*, 55, 155-160 (2003).

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6. Makoto Kitamura, Sachiro Kakinoki, Yoshiaki Hirano, Masahito Oka, Thermosensitive properties of poly(proline)-based polypeptide having an amino-acid of low hydrophobicity, *Polym. Bull.*, 54(4-5), 303-310 (2005).
7. Tetsushi Taguchi, Hirofumi Saito, Masashi Iwasashi, Masataka Sakane, Sachiro Kakinoki, Naoyuki Ochiai, Tetsuya Tateishi, Development of Biocompatible Glue for Minimum Invasive Therapy, *Key Eng. Mat.*, 330-332, 1339-1342 (2007).
8. Tetsushi Taguchi, Hirofumi Saito, Masashi Iwasashi, Masataka Sakane, Yoshiyuki Uchida, Sachiro Kakinoki, Hisatoshi Kobayashi, Junzo Tanaka, Development of a novel glue consisting of naturally-derived biomolecules: citric acid and human serum albumin, *J. Nanosci. Nanotech.*, 7, 742-747 (2007).
9. Sachiro Kakinoki, Makoto Kitamura, Mitsuhiro Yuge, Masakazu Furuta, Masahito Oka, Yoshiaki Hirano, Kenji Kono, Isao Kaetsu, Solution property and irradiation effect of random copolypeptides composed of Ala and Pro residues, *Polym. Bull.*, 58, 393-400 (2007).
10. Sachiro Kakinoki, Tetsushi Taguchi, Junzo Tanaka, Tetsuya Tateishi, Injectable in situ forming drug delivery system for cancer chemotherapy using a novel tissue adhesive: characterization and in vitro evaluation, *Eur. J. Pharm. Biopharm.*, 66, 383-390 (2007).
11. Sachiro Kakinoki, Tetsushi Taguchi, Effect of an Injectable In Situ Forming Drug Delivery System Composed of a Novel Tissue Adhesive Containing Doxorubicin Hydrochloride, *Eur. J. Pharm. Biopharm.*, 67, 676-681 (2007).
12. Sachiro Kakinoki, Yasuyuki Katada, Yoshiyuki Uchida, Tetsushi Taguchi, Surface modification of SUS 316L Stainless Steel with Tartaric Acid derivative-crosslinked Human Serum Albumin matrices, *The Open Biotech. J.*, 2, 143-147 (2008).
13. Chikao Yasuda, Shoei Sakata, Sachiro Kakinoki, Yoshifumi Takeyama, Harumasa Ohyanagi, Hitoshi Shiozaki, In vivo evaluation of microspheres containing the angiogenesis inhibitor, TNP-470, and the metastasis suppression with liver metastatic model implanted neuroblastoma, *Pathophysiology*, 17, 149-155 (2010).
14. Sachiro Kakinoki, Tetsuji Yamaoka, Stable modification of poly(lactic acid) surface with neurite outgrowth-promoting peptides via hydrophobic collagen-like sequence, *Acta Biomaterialia*, 6, 1925-1930 (2010).
15. Sachiro Kakinoki, Sho Uchida, Tomo Ehashi, Akira Murakami, Tetsuji Yamaoka, Surface modification of poly(L-lactic acid) nanofiber with oligo(D-lactic acid) bioactive-peptide conjugates for peripheral nerve

- regeneration, *Polymers*, 3, 820-832 (2011).
16. Ji-Hun Seo, Sachiro Kakinoki, Yuuki Inoue, Tetsuji Yamaoka, Kazuhiko Ishihara, Nobuhiko Yui, Designing dynamic surfaces for regulation of biological responses, *Soft Matter*, 8, 5477-5485 (2012)
 17. Sachiro Kakinoki, Nobuhiko Yui, Tetsuji Yamaoka, Platelet responses to dynamic biomaterial surfaces with different poly(ethylene glycol) and polyrotaxane molecular architectures constructed on gold substrates, *J. Biomat. Appl.*, 28, 544-551 (2013).
 18. Kosuke Endo, Yukiko Naito, Xu Ji, Michio Nakanishi, Teruo Noguchi, Yoichi Goto, Hiroshi Nonogi, Xiao Ma, Huachun Weng, Go Hirokawa, Takashi Asada, Sachiro Kakinoki, Tetsuji Yamaoka, Yasue Fukushima and Naoharu Iwai, MicroRNA 210 as a Biomarker for Congestive Heart Failure, *Biol. Pharm. Bull.*, 36, 48-54 (2013).
 19. Ji-Hun Seo, Sachiro Kakinoki, Tetsuji Yamaoka, Nobuhiko Yui, Movable Polyrotaxane Surfaces for Modulating Cellular Adhesion via Specific RGD-Integrin Binding, *Adv. Sci. Technol.*, 86, 59-62 (2013).
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 23. Tetsuji Yamaoka, Ellyana Njatawidjaja, Atsushi Kasai, Carlos Alberto Agudelo, Tomo Ehashi, Sachiro Kakinoki, Satoshi Kato, Atsushi Mahara Elastic/adhesive double-layered PLA-PEG multiblock copolymer membranes for postoperative adhesion prevention, *Polym. Degrad. Stab.*, 98, 2168-2176 (2013).
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 26. Yihua Liu, Yuuki Inoue, Atsuhiko Mahara, Sachiro Kakinoki, Tetsuji Yamaoka, Kazuhiko Ishihara, Durable modification of segmented polyurethane for elastic blood-contacting devices by graft-type 2-methacryloyloxyethyl phosphorylcholine copolymer, *J. Biomat. Sci., Polym. Ed.*, 25 (14-15), 1514-1529 (2014).
 27. Sachiro Kakinoki, Tetsuji Yamaoka, Thermoresponsive elastin/laminin

- mimicking artificial protein for modifying PLLA scaffolds in nerve regeneration, *J. Mat. Chem. B*, 2, 5061-5067 (2014).
28. Sachiro Kakinoki, Midori Nakayama, Toshiyuki Moritan, Tetsuji Yamaoka, Three-layer microfibrillar peripheral nerve guide conduit composed of elastin-laminin mimetic artificial protein and poly(L-lactic acid), *Frontiers in Chemistry*, 2, Article 52 (2014).
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 31. Tomo Ehashi, Sachiro Kakinoki, Tetsuji Yamaoka, Water absorbing and quick degradable PLLA/PEG multiblock copolymers reduce the encapsulation and inflammatory cytokine production, *J. Artif. Organs*, 17, 321-328 (2014).
 32. Sachiro Kakinoki, Ji-Hun Seo, Yuuki Inoue, Kazuhiko Ishihara, Nobuhiko Yui, Tetsuji Yamaoka, Mobility of the Arg-Gly-Asp (RGD) ligand on the outermost surface of biomaterials suppresses integrin-mediated mechanotransduction and subsequent cell functions, *Acta Biomaterialia*, 13(2015)42-51.
 33. Sachiro Kakinoki, Tetsuji Yamaoka, Single-Step Immobilization of Cell Adhesive Peptides on a Variety of Biomaterial Substrates via Tyrosine Oxidation with Copper Catalyst and Hydrogen Peroxide, *Bioconj. Chem.*, 26(2015)639-644.
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