

Summary of Patents, Publications, Presentations, Service, Grants, and Honors

- **Patents:** Inventor or co-inventor on 41 issued U.S. Patents. Coinventor on 7 additional pending patent applications. Page 2
- **Publications:** Author of 46 publications and invited reviews in refereed journals, including first author on papers in *Nature Medicine*, *J. Amer. Med. Assoc.*, *Proc. Natl. Acad. Sci.* and first or contributing author to *Diabetes Care*, *J. Controlled Release*, *J. Pharm. Sci.*, *Pharm. Res.*, *Biomaterials*. Publication from doctoral dissertation work on extraction of carboxylic acids by amine extractants was voted into top 10 most influential articles of the decade and top 100 most cited articles since 1975 for *Ind. Chem. Eng. Res.* Page 5
- **Technical presentations:** Over 80 abstracts or presentations at technical conferences. Best paper award, Northern California American Diabetes Association, 1998. Page 9
- **Invited Lectures:** Invited lecturer to numerous academic, national, and international conferences. Invited lecturer to Gordon Conferences, UCSF Pharmaceutical Sciences, Stanford Chemical Engineering, Universidade de Santiago de Compostela, Spain, University of the Pacific Pharm. D., Northwestern University, and Georgia Tech seminars and courses. Page 16
- **Service:** Member of fundraising committee for University of California at Berkeley College of Chemistry C. Judson King Tribute fund. Committee volunteer for the American Institute for Biomedical Engineering. Controlled Release Society volunteer and Session chair for various societies. Reviewer for various journals, including *J. Controlled Release*, *Pharm. Res.*, *J. Pharm. Sci.*, *Pediatrics*, and National Institutes of Health grant proposals Page 18
- **Grants and contracts:** Principal Investigator for National Institutes of Health, Phase II SBIR contract that was awarded for \$426,725 and a Phase I SBIR contract for \$145,949. Page 19
- **Honors:** Elected as Fellow to the American Institute of Biomedical Engineering in 1998. National Institutes of Health Fellow. Page 19

PATENTS:

1. Dunn, Timothy C.; Jayalakshmi, Yalia; Kurnik, Ronald T.; Lesho, Matthew J., Oliver, Jonathan James; Potts, Russell O., Tamada, Janet A.; Waterhouse, Steven Richard; Wei, Charles W., U.S. Patent No. 7,935,499 B2, May 3, 2011, "Method and Device for Predicting Physiological Values".
2. Berner, Bret; Chiang, Chia-Ming; Garrison, Michael D.; Jona, Janan; Potts, Russell O.; Tamada, Janet A.; Tierney, Michael J., U.S. Patent No. 7,873,399 B2, Jan. 18, 2011, "Monitoring of Physiological Analytes".
3. Bartkowiak, Miroslaw; Harper, Wesley S.; Kulcu, Eray; Lesho, Matthew J.; Tamada, Janet A.; U.S. Patent No. 7,711,493 B2, May 4, 2010, "Microprocessors, Devices, and Methods for Use in Analyte Monitoring System".
4. Desai, Shashi P.; Dunn, Timothy C.; Lesho, Matthew J.; Potts, Russell O.; Tamada, Janet A.; Wei, Charles W.; U.S. Patent 7,699,775 B2, Apr. 20, 2010, "Methods for Estimating Analyte-Related Signals, Microprocessors Comprising Programming to Control Performance of the Methods, and Analyte Monitoring Devices Employing the Methods".
5. Bartkowiak, Miroslaw; Harper, Wesley S.; Kulcu, Eray; Lesho, Matthew J.; Tamada, Janet A., U.S. Patent 7,523,004 B2, Apr. 21, 2009, "Microprocessors, Devices, and Methods for Use in Analyte Monitoring Systems".
6. Bartkowiak, Miroslaw; Harper, Wesley S.; Kulcu, Eray; Lesho, Matthew J.; Tamada, Janet A., U.S. Patent No. 7,519,478 B2, Apr. 14, 2009, "Microprocessors, Devices, and Methods for Use in Analyte Monitoring Systems".
7. Dunn, Timothy C.; Jayalakshmi, Yalia; Kurnik, Ronald T.; Lesho, Matthew J.; Oliver, Jonathan James; Potts, Russell O.; Tamada, Janet A.; Waterhouse, Steven Richard; Wei, Charles W., U.S. Patent 7,405,055 B2, Jul. 29, 2008, "Method and Device for Predicting Physiological Values".
8. Berner, Bret; Dunn, Timothy C.; Farinas, Kathleen C.; Garrison, Michael D.; Kurnik, Ronald T.; Lesho, Matthew J.; Potts, Russell O.; Tamada, Janet A.; Tierney, Michael J.; U.S. Patent 7,295,867 B2, Nov. 13, 2007, "Signal Processing for Measurement of Physiological Analytes".
9. Berner, Bret; Chiang, Chia-ming; Garrison, Michael D.; Jona, Janan; Potts, Russell O.; Tamada, Janet A.; Tierney, Michael, U.S. Patent No 7,174,199 B2, Feb. 6, 2007, "Monitoring a Physiological Analytes".
10. Conn, Thomas E.; Ford, Russell; Potts, Russell O.; Soni, Pravin L.; Tamada, Janet A.; Tierney, Michael J., U.S. Patent No. 7,163,511 B2, Jan. 16, 2007, "Devices and Methods for Frequent Measurement of an Analyte Present in a Biological System".
11. Tamada, Janet A., Michael J. Tierney, Stephen C. Williams, U.S. Patent No 7,150,975 B2, Dec. 19, 2006, "Hydrogel Composition for Measuring Glucose Flux".
12. Desai, Shashi P., Timothy C. Dunn, Matthew J. Lesho, Russell O. Potts, Janet A. Tamada, Charles W. Wei, U.S. Patent No 7,011,630 B2, Mar. 14, 2006, "Method for Computing Rolling Analyte Measurement Values, Microprocessors Comprising Programming to Control Performance of the Methods, and Analyte Monitoring Devices Employing the Methods".

13. Berner, Bret, Lynn Kim, Norman A. Parris, Russell O. Potts, Janet Tamada, Michael J. Tierney, U.S. Patent No. 6,999,810 B2, Feb. 14, 2006, "Biosensor and Methods of Use Thereof"
14. Berner, Bret, Chia-Ming Chiang, Michael D. Garrison, Janan Jona, Russell O. Potts, Janet A. Tamada, Michael J. Tierney, U.S. Patent No 6,850,790 B2, Feb 1, 2005, "Monitoring of Physiological Analytes".
15. Kim, Lynn; Parris, Norman A; Potts, Russell O.; Tamada, Janet; Tierney, Michael J.; Berner, Bret, U.S. Patent No 6,816,742 B2, Nov 9, 2004, "Biosensor and Methods of Use Thereof".
16. Kurnik, Ronald T.; Tamada, Janet; Tierney, Michael J. U.S. Patent No. 6,771,995 B2, Aug 3, 2004, "Chemical Signal-Impermeable Mask".
17. Tamada, Janet, U.S. Patent No. 6,687,522, Feb. 3, 2004, "Device for sample of substances using alternating polarity".
18. Dunn, Timothy C., Jayalakshmi, Yalia, Kurnik, Ronald T., Lesho, Matthew J., Oliver, Jonathan James, Potts, Russell O., Tamada, Janet A., Waterhouse, Steven R., Wei, Charles W., "Method and Device for Predicting Physiological Values", U.S. 6,653,091, Nov. 25, 2003.
19. Berner, Bret, Dunn, Timothy C., Farinas, Kathleen C., Garrison, Michael D., Kurnik, Ronald T., Lesho, Matthew J., Potts, Russell O., Tamada, Janet A., Tierney, Michael J., U.S. Patent No. 6,595,919 G2, Jul. 22, 2003, "Device for Signal Processing for Measurement of Physiological Analytes".
20. Bret Berner, Chia-Ming Chiang, Michael D. Garrison, Janana Jona, Russell O. Potts, Janet A. Tamada, Michael J. Tierney, "Device for Monitoring of Physiological Analytes", U.S. Patent No. 6,594,514, Jul. 15, 2003.
21. Kim, Lynn, Parris, Norman A., Potts, Russell O., Tamada, Janet, Tierney, Michael J., Berner, Bret, "Biosensor, Iontophoretic Sampling System, and Methods of Use Thereof", U.S. Patent No. 6,587,705 B1, issued Jul. 1, 2003.
22. Conn, Thomas E., Ford, Russell, Potts, Russell O., Soni, Pravin L, Tamada, Janet A., Tierney, Michael J., U.S. Patent No. 6,561,978, May 13, 2003, "Devices and Methods for Frequent Measurement of an Analyte Present in a Biological System"
23. Kurnik, R. T.; Tamada, J.; Tierney, M., U. S. Patent No. 6,529,755, Mar. 4, 2003, "Chemical Signal Impermeable Mask".
24. Kurnik, Ronald T., Tamada, Janet, Tierney, Michael, U.S. Patent No. 6,370,410 B2, Apr. 9, 2002, "Method of Producing an Assembly for Use in a Monitoring Device"
25. Berner, Bret, Chiang, Chia-Ming, Garrison, Michael D., Jona, Janan, Potts, Russell O., Tamada, Janet A., Tierney, Michael J., U.S. Patent No. 6,356,776, Mar. 12, 2002, "Device for Monitoring of Physiological Analytes"
26. Dunn, Timothy C., Jayalakshmi, Yalia, Kurnik, Ronald T., Lesho, Matthew J., Oliver, Jonathan James, Potts, Russell O., Tamada, Janet A., Waterhouse, Steven R., Wei, Charles W., "Microprocessors for use in a Device for Predicting Physiological Values", U.S. Patent No. 6,326,160, Dec. 4, 2001.

27. Kurnik, Ronald T., Tamada, Janet A., Tierney, Michael, Potts, Russell Owen, U.S. Patent No. US 6,309,351, Oct. 30, 2001, "Methods for Monitoring a Physiological Analyte".
28. Kurnik, Ronald T., Tamada, Janet A., Tierney, Michael, Potts, Russell Owen, U.S. Patent No. US 6,299,578, Oct. 9, 2001, "Continual Monitoring of a Physiological Analyte".
29. Tamada, Janet, U.S. Patent No. 6,298, 254, Oct. 2, 2001, "Device for Sampling Substances Using Alternating Polarity of Iontophoretic Current".
30. Kurnik, Ronald T., Janet Tamada, Michael Tierney, U.S. Patent No. 6,291,979, Mar 13, 2001, "Chemical Signal Impermeable Mask".
31. Kurnik, Ronald T., Janet Tamada, Michael J. Tierney, U.S. Patent No. 6,284,126, Sep 4, 2001, "Electrode with Improved Signal to Noise Ratio.", RE 38,681 Jan. 4, 2005.
32. Berner, Bret, Timothy C. Dunn, Kathleen C. Farinas, Michael D. Garrison, Ronald T. Kurnik, Matthew J. Lesho, Russell O. Potts, Janet A. Tamada, Michael J. Tierney, U.S. Patent No. 6,233,471 B1, May 15, 2001, "Signal Processing for Measurement of Physiological Analysis".
33. Kurnik, Ronald T., Oliver, Jonathan James, Potts, Russell O., Waterhouse, Steven Richard, Dunn, Timothy C., Jayalakshmi, Yalia, Lesho, Matthew J., Tamada, Janet A., Wei, Charles W., U.S. Patent No. 6,180,416, Jan. 30, 2001, "Method and Device for Predicting Physiological Values"
34. Berner, Bret, Chia-Ming Chiang, Michael D. Garrison, Janan Jona, Russell O. Potts, Janet A. Tamada, Michael J. Tierney, U.S. Patent No. 6,144,869, Nov. 7, 2000, "Monitoring of Physiological Analytes."
35. Kurnik, Ronald T., Janet Tamada, Michael Tierney, U.S. Patent No. 6,141,573, Oct. 31, 2000, "Chemical Signal-Impermeable Mask."
36. Kurnik, Ronald T., Janet Tamada, Michael J. Tierney, U.S. Patent No. 6,139,718, Oct. 31, 2000, "Electrode with Improved Signal to Noise Ratio"; US RE38,775 E, Reissued Aug. 16, 2005.
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38. Kurnik, Ronald T., Janet Tamada, Michael Tierney, U.S. Patent No. 5,989,409, Nov. 23, 1999, "Method for Glucose Sensing."
39. Kurnik, Ronald T., Janet Tamada, Michael Tierney, U.S. Patent No. 5,827,183, Oct. 27, 1998, "Method of Measuring Chemical Concentration Iontophoretically Using Impermeable Mask."
40. Tamada, Janet, U.S. Patent No. 5,771,890, June 30, 1998, "Device and Method for Sampling of Substances Using Alternating Polarity."
41. Kurnik, Ronald T., Janet Tamada, Michael Tierney, U.S. Patent No. 5,735,273, April 7, 1998, "Chemical Signal-Impermeable Mask."

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4. Sluzky, V., Tamada, J. A., Klibanov, A. M., and Langer, R. S., "Kinetics of Insulin Aggregation in Aqueous Solutions upon Agitation in the Presence of Hydrophobic Surfaces", *Proc. Natl. Acad. Sci. USA*, **88**, 9377-9381 (1991).
5. Tamada, J. A., Kertes, A. S., and King, C. J., "Extraction of Carboxylic Acids with Amine Extractants. Part 1. Equilibria and Law-of-Mass-Action Modeling", *Ind. Eng. Chem. Res.*, **29**, 1319-1326 (1990).

ADDITIONAL PUBLICATIONS:

6. Tamada, Janet, "Considerations for Clinical Trials Involving Microneedle Devices", Chapter 10, in Stoeber, Boris, Sivamani, Raja K, and Maibach, Richard *Microneedling in Clinical Practices*, CRC Press, 2 October 2020, <https://doi.org/10.1201/9781315265612>
7. Jina, Arvind, Tierney, Michael J., Tamada, Janet A., McGill, Scott, Desai, Shashi, Chua, Beelee, Change, Anna, and Christiansen, Mark, "Design, Development, and Evaluation of a Novel Microneedle Array-Based Continuous Glucose Monitor", *J. Diabetes Sci. Technol.* (6 Mar 2014). <http://dst.sagepub.com/content/early/2014/03/05/1932296814526191>
8. Beelee Chua, Peijie Cao, Shashi P. Desai, Michael J. Tierney, Janet A. Tamada and Arvind N. Jina, "Sensing Contact Between Microneedle Array and Epidermis Using Frequency Response Measurement", *IEEE Sensors Journal*, **14**(2), 333-340 (2014).
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13. Tamada, Janet A., Davis, Tara L, Leptien, Amy, Lee, Jonathan, Wang, Betty, Lopatin, Margarita, Wei, Charles, Wilson, Donald, Comyns, Kathleen, Eastman, Richard, “The Effect of Pre-Application of Corticosteroids on Skin Irritation and Performance of the GlucoWatch G2® Biographer”, *Diabetes Technology & Therapeutics*, 6(3), 357-367 (2004).
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17. Richard C. Eastman, H. Peter Chase, Bruce Buckingham, Eba Hathout, Janet Tamada, Barry Ginsberg, “How should we interpret ‘real-life’ conditions”, Point-Counterpoint, *Pediatric Diabetes*, 4, 59 (2003).
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19. Janet A. Tamada, Matthew Lesho, and Michael J. Tierney, “Keeping Watch On Glucose”, *IEEE Spectrum*, 39(4), 52-57 (Apr. 2002).
20. Michael J. Tierney, Janet A. Tamada, and Russell O. Potts, “A Non-invasive Glucose Monitor: The GlucoWatch® Biographer”, *The Biochemist*, 23(6), 17-19 (Dec. 2001).
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ABSTRACTS AND PROCEEDINGS:

1. Tamada, Janet, Tierney, Michael, Desai, Shashi, McGill, Scott, Chua, Beelee, Jina, Arvind, “Design and Evaluation of a MicroTip™ Array-based Continuous Glucose Monitor, Abstracts of the 11th Annual Diabetes Technology Meeting, Bethesda, MD, Nov 11, 2012.
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5. Lee, Jonathan, Davis, Tara, Lopatin, Margarita, Eastman, Richard, and Tamada, Janet, “Effect of Topical Corticosteroid Pre-treatment on Skin Irritation and Performance of the GlucoWatch® G2™ Biographer”, abstracts of the Diabetes Technology Society Meeting, San Francisco, CA, Nov 6 – 8, 2003.
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15. Chase, Wightman, Garg, Van Wyhe, Desai, Harper, Tamada, Eastman, "Use of the GlucoWatch® Biographer in children and adolescents with Type 1 diabetes", *Abstract Book of the 62nd Scientific Sessions of the American Diabetes Association*, Paper 483-P, San Francisco, CA, June 14-18, 2002.
16. Chase, Desai, Wightman, Van Wyhe, Tamada, Eastman, "Increased detection of hypoglycemia during intensive therapy of type 1 diabetes in children and adolescents using the GlucoWatch® Biographer", *Abstract Book of the 62nd Scientific Sessions of the American Diabetes Association*, Paper 46-OR, San Francisco, CA, June 14-18, 2002.
17. Eastman, Chase, Buckingham, Hathout, Leptien, Van Wyhe, Davis, Lopatin, Wei, Tamada, Pitzer, "Use of the GlucoWatch® Biographer in children and adolescents with diabetes", *Abstract Book of the 62nd Scientific Sessions of the American Diabetes Association*, Paper 489-P, San Francisco, CA, June 14-18, 2002.
18. Harper, Dunn, Pitzer, Tamada, Wei, Lesho, "Enhancing the utility of the GlucoWatch® Biographer", *Abstract Book of the 62nd Scientific Sessions of the American Diabetes Association*, Paper 494-P, San Francisco, CA, June 14-18, 2002.
19. Dunn, Tamada, Eastman, "Periprandial rate of change of blood glucose measured by fingerstick and GlucoWatch® Biographer", *Abstract Book of the 62nd Scientific Sessions of the American Diabetes Association*, Paper 488-P, San Francisco, CA, June 14-18, 2002.
20. Tamada, Janet A, Potts Russell O, Tierney, Michael J., "Separation of Species that Interfere with Glucose Signal for a Transdermal Glucose Monitor", proceedings of the 20001 Annual AIChE meeting, Reno, NV, Nov 4-9, 2001.
21. Leptien, Amy D., Eastman, Richard C., Comyns, Kathleen, Wilson, Donald R., Choe, Grant U., Potts, Russell O., and Tamada, Janet A., "The Effect of Topical Lubricants and Corticosteroids Use on Irritation Resulting from Use of the GlucoWatch® Automatic Glucose Biographer", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.
22. Desai, Shashi, Tamada, Janet, Kurnik, Ron, and Potts, Russell, "Predicting glucose values from previous measurements", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.

23. Dunn, Tim, Bartkowiak, Mirosław, Tamada, Janet, "Effects of Mutarotation of Glucose on Biosensor Function", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.
24. Dunn, Tim, Harper, Wesley, Lesho, Matt, Pitzer, Ken, Tamada, Janet, and Wei, Charles, "Enhancing the Usability of the GlucoWatch® Biographer", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.
25. Wei, Charles, Tamada, Janet, Pitzer, Ken, Eastman, Richard, and Lesho, Matt, "Association of Hypoglycemia with Perspiration in GlucoWatch® Biographer Usage", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.
26. Kulcu, Eray, Tamada, Janet, and Lesho, Matt, "Examination of Lag Time between GlucoWatch® Biographer Readings and Capillary Blood Glucose Readings in a Clinical Setting", Diabetes Technology Meeting, Millbrae, CA, November 2-3, 2001.
27. Janet A. Tamada, Donald R. Wilson, Kathleen Comyns, Russell O. Potts, Effect of Skin Irritation on Biosensor Response of the GlucoWatch® Biographer, 2001 Annual Meeting of the Biomaterials Society in St. Paul, MN, April 24-29, 2001.
28. Eastman, Richard, Janet Tamada, Fermi, Steve, "Accuracy of the GlucoWatch® Automatic Glucose Biographer in Subjects 7-17 Years of Age with Diabetes", American Diabetes Association's 61st Scientific Sessions, Philadelphia, PA, June 22-26, 2001.
29. S. Desai, T.C. Dunn, K.R. Pitzer, J.A. Tamada, R.C. Eastman, R.O. Potts Redwood City, CA, Detection of Postprandial Hyperglycemia Using the GlucoWatch® Biographer, American Diabetes Association's 61st Scientific Sessions, Philadelphia, PA, June 22-26, 2001.
30. Tamada, J. and the Cygnus GlucoWatch Biographer Team, "Transdermal Glucose Monitoring", Amer. Assoc. Advancement Sci., San Francisco, CA, February 16, 2000.
31. Tamada, J., Kurnik, R., Wei, C., Oliver, J., "Use of the Mixture of Experts Algorithm to Process Data from a Non-Invasive Glucose Monitor", AIChE Annual Meeting, November 15, 2000, Los Angeles, CA.
32. Tamada, J., Kurnik, R. "Design of a glucose monitoring system", World Congress on Medical Physicals and Biomedical Engineering, IEEE/BMES meeting, Chicago, IL, July 23-28, 2000.
33. Tierney, Michael J., Tamada, Janet A., Potts, Russell O., "The GlucoWatch® Biographer: A Continual Non-invasive Glucose Monitor", Eastern Analytical Symposium.
34. Tamada, J., Jovanovic, L, Garg, S., Ackerman, N., Fermi, S., Potts, R., Tierney, M., "Evaluation of the GlucoWatch Biographer: An Automatic and Non-Invasive Glucose Monitor", American Diabetes Association's 60th Scientific Sessions, San Antonio, Texas, June 9-13, 2000.
35. Garg, S., Chase, P., Fermi, S. Tamada, J., Potts, R., "Evaluation of the GlucoWatch® Biographer Performance during Extended Wear", American Diabetes Association's 60th Scientific Sessions, San Antonio, Texas, June 9-13, 2000.
36. Lesho, M., Kurnik, R., Tamada, J., Wei, C., Jayalakshmi, Y., Potts, R., "Enhancing the Performance of the GlucoWatch® Biographer: Results from a Prospective Clinical Trial", American Diabetes Association's 60th Scientific Sessions, San Antonio, Texas, June 9-13, 2000.

37. Garg, S., Dunn, T., Tamada, J., Pitzer, K., "Retrospective Analysis of Insulin Dosing Decisions Based on Results from the GlucoWatch® Biographer," American Diabetes Association's 60th Scientific Sessions, San Antonio, Texas, June 9-13, 2000.
38. Tamada, J A , Burns, M J , Comyns, K, Potts, R O ,Tierney, M J , "Separation of species that interfere with glucose signal for a transdermal glucose monitor", Biosensors 2000, San Diego, May 24, 2000.
39. Tierney, M J, Tamada J A, Potts, R O, Jovanovic, L, Garg, S, and the Cygnus Research Team, "Comprehensive clinical evaluation of the glucowatch biographer: a continual, non-invasive glucose monitor for patients with diabetes", Biosensors 2000, San Diego, May 24, 2000.
40. Tierney, M.J., Tamada, J.A., Potts, R.O., and the Cygnus Research Team, "Clinical Evaluation of the GlucoWatch Biographer: A Continual, Non-Invasive Glucose Monnitor for Patients with Diabetes", 197th meeting of the Electrochemical Society, Toronto, May 14-18, 2000.
41. Lesho, M., Kurnik, R.T., Tamada, J., Potts, R.O., "Design of an Iontophoretic Glucose Monitoring System", 197th meeting of the Electrochemical Society, Toronto, May 14-18, 2000.
42. Garg, S.K., Tamada, J., Potts, R., Fermi, S., Jennings, K. Perry, S., Pennington, M., Robinson, J., Chase, P., "Correlation of GlucoWatch® Biographer Glucose Values with Hemocue® Blood Glucose Results In Young Subjects With Type 1 Diabetes ", 59th Annual Session of the American Diabetes Association, San Diego, Abstract #0262, June 22, 1999.
43. Kurnik, R.T., Jayalakshmi, Y., Potts, R.O., Tamada J.A., Wei, C., Oliver, J.J., Waterhouse S. R., "Use of the mixtures of experts algorithm in a non-invasive glucose monitor", 31st Annual Oak Ridge Conference, San Jose, CA, AACC, Apr. 23&24, 1999.
44. Lesho, M.J., Dunn, T.C., Lake, T., Morley, S., Tamada, J.A., "Data screening methods effectively reduce error in a wearable blood glucose monitor", 31st Annual Oak Ridge Conference, San Jose, CA, AACC, Apr. 23&24, 1999.
45. Tamada, J. A., Dunn, T.C., Fermi, S., Kurnik, R., Jayalakshmi, Y., Lesho, M., Potts, R.O., Reidy, M.P., Tierney, M.J., Wei, C., "Blood glucose monitoring in diabetic subjects using trasndermal glucose extraction in an *in situ* glucose sensor", 31st Annual Oak Ridge Conference, San Jose, CA, AACC, Apr. 23&24, 1999.
46. Uhegbu, C., Oliva, M., Reidy, M.P., Soni, P., Tamada, J. A., Tierney, M. J., Vijayakumar, P., "Management of interferences in a transdermal, non-invasive glucose monitoring device", 31st Annual Oak Ridge Conference, San Jose, CA, AACC, Apr. 23&24, 1999.
47. Tierney, M. J., Tamada, J. A., K., Parris, N., Potts, R. O., Berner, B., "Biosensor for Transdermal Glucose Monitoring", *Proc. Int. Symp. Controlled Release Bioact. Mater*, 25 (1998), paper #203, Las Vegas, NV, Controlled Release Society: Lincolnshire, IL.
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51. Tierney, M.J., Tamada, J.A., Parris, N., Berner, B., Potts, R.O., "In vivo Performance of an Electrochemical Transdermal Glucose Monitoring System, *Biosensors '98*, Berlin, Germany (1998).
52. Tierney, M.J., Tamada, J.A., Parris, N., Berner, B., Potts, R.O., "In vivo Performance Continual, Transdermal Glucose Monitoring System, *American Association of Clinical Chemistry Oak Ridge Conference*, Raleigh, NC, April 1998.
53. Tamada, J.A., Tierney, Berner, B., Potts, R. O., "Measurement of Glucose Using Non-Invasive Transdermal Extraction", *Amer. Inst. Chem. Eng.*, Nov 16-23, 1997, Los Angeles, CA.
54. Kim, H.-L., Tierney, M. J., Burns, M.D., Tamada, J.A., "Non-invasive Glucose Measurements Via Amperometric Sensing with Iontophoretic Sampling", *191st meeting of the Electrochemical Society*, May 4-9, 1997, Montreal, Canada.
55. Tamada, J.A., Comyns, K., Potts, R.O., "Electrically driven transport to extract glucose across human skin for glucose monitoring", *Amer. Chem. Soc.*, April 13-17, 1997, San Francisco, CA.
56. Farinas, K. C., Wei, C., Tamada, J.A., Tierney, M. J., Berner, B., Potts, R. O., "*In Vitro* Testing of a Non-Invasive Glucose Monitor", *Amer. Chem. Soc.*, April 13-17, 1997, San Francisco, CA.
57. Tierney, M. J., Burns, M. Kim, H. L., Tamada, J., "Non-invasive Glucose Measurements Via Amperometric Sensing with Iontophoretic Sampling", *Amer. Chem. Soc.*, April 13-17, 1997, San Francisco, CA.
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59. Tamada, J.A., Comyns, K., Potts, R. O., "Factors Affecting Electroosmotic Extraction of Glucose", *Symposium on Transdermal Administration, A Case Study, Iontophoresis*, Mar 3-4 (1997), Paris, France, Association de Pharmacie Galenique Industrielle: Cedex, France.
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61. Tamada, J. A., Comyns, K., Rafii, K., Chan, G., and Potts, R. O., "Factors affecting electroosmotic glucose flux in human subjects", *Proc. Int. Symp. Controlled Release Bioact. Mater.*, 23 (1996), 192-193, Kyoto, Japan, Controlled Release Society: Lincolnshire, IL.
62. Tierney, M.J., Burns, M.D., Kim, H.L., and Tamada, J.A., "Biosensor for Transdermal Non-Invasive Glucose Sensing", *Biosensors Conference*, May 1996, Bangkok, Thailand.

63. Tamada, J., Azimi, N. Leung, L, Plante, P. Potts, R.O., "Correlation of blood glucose with iontophoretic glucose flux in human subjects for glucose monitoring", *Proc. Int. Symp. Controlled Release Bioact. Mater.*, 22 (1995), Paper No. 239, Seattle, WA, Controlled Release Society: Lincolnshire, IL.
64. Rao, G., Tamada, J., Azimi, N. Leung, L, Plante, P. Potts, R.O., Glikfeld, P., LaCourse, W.R., Guy, R.H., "Iontophoretic and noninvasive glucose monitoring", *Proc. Int. Symp. Controlled Release Bioact. Mater.*, 21 (1994), Paper No. 107, Nice, France, Controlled Release Society: Lincolnshire, IL.
65. Riviere, J.E., Rogers, R.A., Tamada, J. Bommannan, B., Potts, R.O., "Increased Transdermal Delivery of LHRH in Perfused Porcine Skin By Electroporation", PDD 7063, *Proceed. Amer. Assoc. Pharm. Sci. Ninth Annual Meeting*, San Diego, CA, November 6-10, 1994.
66. Monteiro-Riviere, N.A., Inman, A. O., Tamada, J., Potts, R. O., Riviere, J.E., "Histological Evaluation of Transdermal Electroporation and Iontophoresis LHRH Delivery in Porcine Skin", PDD 7065. *Proceed. Amer. Assoc. Pharm. Sci. Ninth Annual Meeting*, San Diego, CA, November 6-10, 1994.
67. Potts, R.O., Bommannan, D.B., Wong, O., Tamada, J.A., "Transdermal Peptide Delivery Using Electroporation", Abstracts of the BioPharm Conference, 13-15 Jun 1994, San Francisco, CA (1994).
68. Tamada, J., Sharifi, J., Bommannan, D. B., Leung, L., Azimi, N., Abraham, W., Potts, R., "Effect of Electroporation on the Iontophoretic Delivery of Peptides In Vitro", *Amer. Assoc. Pharm. Sci. Annual Meeting*, Orlando, FL (1993).
69. Shieh, L., Tamada, J., Tabata, Y., Domb, A., Langer, R., "Drug Release from a New Family of Biodegradable Polymers", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 20 (1993), Poster No. 1334, Washington, D.C., Controlled Release Society: Lincolnshire, IL.
70. Bommannan, D., Leung, L., Tamada, J., Sharifi, J., Abraham, W., and Potts, R., "Transdermal Delivery of Luteinizing Hormone Releasing Hormone: Comparison Between Electroporation and Iontophoresis In Vitro", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 20 (1993), Presentation No. 215, Washington, D.C., Controlled Release Society: Lincolnshire, IL.
71. Abraham, W. A., Bommannan, D., Potts, R. O., Tamada, J. A., "Drug Delivery: Status, Issues and Challenges for Medicine", *Proceed. XIth International Symposium on Bioelectrochemistry and Bioenergetics*, Paper No. 6, Bielefeld, Germany, (April 5-8, 1993), ZiF-Proc., University of Bielefeld Press: Bielefeld Germany.
72. Tamada, J.A., "Development of a Biodegradable Drug Delivery System", *Drug Delivery & Targeting Systems*, (Dec. 5-6, 1991), IBC Technical Services Ltd: London, UK.
73. Mikos, A.G., Lai, H.-L., Leite, S.M., Tamada, J.A., and Langer, R., "Characterization of Degradation of Poly(L-Lactic Acid) Foams", *Abstr. AIChE National Meeting*, Los Angeles, CA (November 1991) AIChE: New York.
74. Tamada, J. A. , Sawka, M., and Langer, R. S., "Probing the Nature of the Erosion of the Polyanhydrides", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, Amsterdam, Holland (July 8-12, 1991) Controlled Release Society: Lincolnshire, IL.

75. Tamada, J. A. and Langer, R. S., "Erosion Mechanism of Polyanhydride Drug Delivery Systems", *Abstr. AIChE National Meeting*, Chicago, IL (November 18-23, 1990) AIChE: New York.
76. Sluzky, V., Tamada, J. A., Langer, R. S., and Klibanov, A., "Kinetics of Insulin Aggregation", *Abstr. AIChE National Meeting*, Chicago, IL (November 18-23, 1990) AIChE: New York.
77. Tamada, J. A., "Drug Delivery from Synthetic Biodegradable Polymers", *Proceed. Intern. Conf. Pharm. Ing. Intermed.*, Session 3, Paper 5, Frankfurt, Germany (October 8-9, 1990) Expoconsult: Maarssen, Holland.
78. Tamada, J. A. and Langer, R. S., "Mechanism of the Erosion of Polyanhydride Drug Delivery Systems", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater.*, 17, Paper No. D305, Reno, NV (July 22-25, 1990) Controlled Release Society: Lincolnshire, IL.
79. King, C. J., Starr, J. N., Poole, L. J., and Tamada, J. A., "Regeneration of Amine-Carboxylic Acid Extractants", *Proceed. Intern. Solv. Extr. Conf.*, Tokyo, Japan (July 1990).
80. Tamada, J. A., Kertes, A. S., and King, C. J., "Recovery of Carboxylic Acids from Aqueous Solution: Process Improvement Based Upon Molecular Insight." *Abstr. AIChE National meeting*, Washington, D.C. (Nov. 27 - Dec. 2, 1988) AIChE: New York.
81. Tamada, J. A., Kertes, A. S., and King, C. J., "Extraction of Carboxylic Acids from Aqueous Solution by Means of Tertiary Amine Extractants: Equilibria and Processing Alternatives." *Proceed. Intern. Solv. Extr. Conf.*, Moscow, USSR (July 18-24 1988) Vernadsky Inst. Geochem. Anal. Chem. USSR Acad. Sci.: Moscow, USSR.
82. Tamada, J. A., Kertes, A. S., and King, C. J., "Extraction of Carboxylic Acids from Aqueous Solutions by Means of Tertiary Amine Extractants: Equilibria and Processing Alternatives", *Abstr. Fifth Symp. Separ. Sci. Technol. Energ. Applic.*, Knoxville, TN (Oct. 26-29, 1987).
83. Tamada, J. A., Kertes, A. S., and King, C. J., "Solvent Extraction of Carboxylic Acids from Aqueous Solutions", *Prepr. Intern. Solv. Extr. Conf.*, vol. III, 631-638, Munich, Germany (Sept. 11-16, 1986) DECHEMA: Frankfurt, Germany.

INVITED LECTURES:

1. “Profusa’s implantable hydrogel sensors for monitoring small molecules”, BioInterface 2019, Park City, UT, Sept 4, 2019.
2. Design and Development of the GlucoWatch® Biographer: A Transdermal Glucose Monitor, Stanford University, Bioengineering Department Course, May 28, 2019.
3. “You can recognize pioneers by the arrows in their backs: Tales from development of the world’s first continuous glucose monitor”, Symposium in Honor of Robert Langer’s 70th Birthday, Cambridge, MA, Sept 5, 2018.
4. “Sensing for Connected Delivery – Challenges and Opportunities”, 43rd Annual Meeting & Exposition of the Controlled Release Society, Seattle, Washington, U.S.A. July, 20, 2016
5. “Microneedles: Breaking the (Skin) Barrier for Drug Delivery and Diagnostics, Bio2Device Meeting, Sunnyvale, CA, July 29, 2014.
6. “Microneedles for Drug Delivery and Glucose Monitoring”, Center for Research on Molecular Medicine and Chronic Diseases (CIMUS), Universidade de Santiago de Compostela, Spain, July 7, 2014.
7. “Interstitial Fluid Sampling by Reverse Iontophoresis”, Sixth Annual Diabetes Technology Meeting, Atlanta, Georgia, Nov 2, 2006.
8. “Cost-Effective Drug Delivery for Unmet Needs”, Georgia Institute of Technology, Perspectives on the Future of Pharmaceuticals Lunch Discussion Series, September 22, 2004
9. “Reduction in Skin Irritation by Corticosteroid Application Prior to Use of the GlucoWatch G2® Biographer”, Electrochemical Society Meeting, San Antonio, TX, May 12, 2004.
10. “Design and Development of the GlucoWatch® Biographer”, Designing an Accelerated Cure for Type 1 Diabetes: Integrating Biology with Bioengineering”, University of California, Santa Barbara, Nov 14, 2003.
11. “Design of the GlucoWatch® Biographer: A Transdermal Glucose Monitoring Device”, Northern California American Institute of Chemical Engineering Meeting, Mountain View, CA, Nov. 2, 2003.
12. “Hypoglycemia Detection and Prediction”, Diabetes Technology Society Meeting, San Francisco, CA, Nov 6 – 8, 2003
13. “Transport Across Skin Under the Influence of Electric Fields”, Gordon Research Conference on Membrane Transport and Processing, Colby-Sawyer College, NH, August 4-9, 2002.
14. “Design of the GlucoWatch® Biographer: A Transdermal Glucose Monitoring System”, University of California, Santa Barbara, Bioengineering Department Seminar, April 8, 2002.
15. “Glucose Monitoring Systems for Diabetes Management”, University of the Pacific, Department of Pharmacy, Stockton, CA, Nov 26, 2001.

16. "Transdermal Glucose Monitoring", Amer. Assoc. Advancement Sci., San Francisco, CA, Feb 16, 2001.
17. "The GlucoWatch Biographer -- Non-Invasive Glucose Monitoring: Comprehensive Clinical Results", Boston Children's Hospital Seminar, April 28, 2000.
18. "Design of a Non-Invasive Transdermal Glucose Monitor", Northwestern University Department of Bioengineering, January 2000.
19. "Non-invasive glucose monitoring based on electrically-enhanced glucose extraction through skin", Department of Chemical Engineering, Stanford University, April 29, 1998.
20. "Noninvasive Transdermal Glucose Monitoring", Las Vegas, NV, Controlled Release Society, June 25, 1998.
21. "The GlucoWatch™", National Aeronautics and Space Administration (NASA) and Juvenile Diabetes Foundation (JDF) Workshop on Non/Minimally Invasive Measurement of Physiological Analytes, Washington, D.C., April 7-8, 1998.
22. "Reverse Iontophoretic Extraction", KSP and CRS Joint Symposium on Recent Advances in Drug Delivery and Biomaterials, Seoul, Korea, September 24-26, 1997.
23. "Methods of Tissue Monitoring of Glucose", Gordon Research Conference on The Barrier Function of Mammalian Skin, Tilton School, Tilton, NH, August 11-15, 1997.
24. "Electrically driven transport across the skin for glucose sampling", Gordon Research Conference on Bioelectrochemistry//Molecular and Cellular Biophysics of the Alteration of Biochemical Reactions and Transport by Electric and Magnetic Fields, Salve Regina University, Newport, RI, July 21-26, 1996.
25. Tamada, J. A., guest lecturer for course on Transport and Reaction Processes, PC 236, University of California at San Francisco, Department of Pharmaceutical Sciences May 1996.
26. "Electroosmotic Extraction for a Transdermal Glucose Monitor", University of California at San Francisco, Departmental Seminar of the Biopharmaceutical Sciences Department, May 31, 1996.
27. "Polymers for Controlled Release Drug Delivery", National University of Singapore, April 3, 1996.
28. "Electroporation and Iontophoretic Delivery of Peptides", Affymax, Santa Clara, CA Sept. 1993.
29. "Electroporation and Iontophoretic Delivery of Peptides", Gordon Research Conference on the Barrier Properties of Mammalian Skin, Plymouth State College, Plymouth, NH, August 17, 1993.
30. "Drug Delivery from Synthetic Biodegradable Polymers", Intern. Conf. Pharm. Ing. Intermed. (CPhI), Session 3, Presentation No. 5, Frankfurt, Germany, October 9, 1990.
31. "Controlled Release Drug Delivery: An Overview", Amer. Lung Assoc./Amer. Thoracic Soc. Intern. Conf., Symposium on Targeted Drug Delivery to the Lung, Anaheim, CA., May 12, 1991.
32. "Development of a Biodegradable Drug Delivery System", Drug Delivery & Targeting Systems, IBC Technical Services Ltd. London, England, December 5, 1991.

PROFESSIONAL SERVICE

Organizations and Committees

- Member of the Controlled Release Society Transdermal Award Committee, 2018 –
- Volunteer, AIMBE Industrial Practice committee, 2013 - 2015
- Member of the C. Judson King endowed chair fundraising committee for the University of California at Berkeley College of Chemistry, 2009
- Chair of the Controlled Release Society Awards Coordinating Committee, 2000-2003
- Member of the Scientific Advisory Board, Controlled Release Society, 2001 – 2004.
- Session Co-chair, American Institute of Chemical Engineers, November 1997, Session on Drug Delivery Using Biodegradable Materials, Los Angeles, CA.
- Session Co-chair, Controlled Release Society 1996 Meeting, Session on Transdermals and Iontophoresis, Kyoto, Japan.
- Session Co-chair, Controlled Release Society 1995 Meeting, Session on Transdermals and Iontophoresis, Seattle, Washington
- Session Co-chair and Organizer, Materials Research Society Spring 1995 Meeting, Session on Polymers in Medicine and Pharmacy, San Francisco, CA.
- Member of the American Diabetes Association, Controlled Release Society, American Institute of Chemical Engineering, American Institute of Biomedical Engineering, American Chemical Society, Tau Beta Pi Engineering Honor Society

Reviewer:

- Workshop reviewer for Controlled Release Society.
- Highlights of Student Posters Committee, Controlled Release Society
- Student Awards Committee, Controlled Release Society
- Manuscript reviewer, *Journal of Controlled Release*
- Manuscript reviewer, *Journal of Pharmaceutical Sciences*
- Manuscript reviewer, *Pharmaceutical Research*
- Manuscript reviewer, *Industrial and Engineering Chemistry*
- Manuscript reviewer, *Pediatrics*
- Grant Reviewer, Academic Research Enhancement Award, Pharmacology Study Section, Center for Scientific Review, National Institutes of Health
- Grant Reviewer, NIH Program for Pilot projects or feasibility studies (R21).

GRANTS AND CONTRACTS:

1. Principal Investigator for National Institutes of Health, NIDDK N44DK032617-000, Phase II SBIR Contract that was awarded for \$426,725 for Improvement in a continuous glucose monitoring system
2. Principal Investigator for 1R43HL073537-01A1 Phase I SBIR Contract for \$145,949 for “Novel Inhalation System for Delivery of Nicotine”.

HONORS:

- ALZA Encore Platinum (highest level) Award in 2006 for setting up device systems, completing IND, and completing Phase I clinical trial
- Johnson & Johnson Excellence in Science Award
- American Chemical Society Industrial Biotechnology Award for Cygnus 2001
- Elected Fellow of the American Institute of Biomedical Engineering (AIMBE) in 1998
- Cygnus Inventor of the Year in 1994
- National Institutes of Health Postdoctoral Research Fellow
- National Science Foundation Graduate Fellow
- Undergraduate scholarships
 - National Merit Scholar
 - Caltech Carnation Scholar
 - Chevron Scholar
 - Kodak Scholar