

926. Histological Assessment Of The Polyimide Based Implantable Microelectrode Arrays 1:15
D. GANDHI, T. VALYI-NAGY AND P. ROUSCHE
University of Illinois at Chicago, Chicago, IL

927. Implantable Nanoparticle-Based Cancer Sensor 1:30
G.Y. KIM, K. DANIEL, C. VASSILOU, N. ELMAN, R.S. LANGER AND M.J. CIMA
Massachusetts Institute of Technology, Cambridge, MA

928. Implantable Flexible Microfluidic Devices For Convection Enhanced Neural Drug Delivery 1:45
C. FOLEY¹, K. NEEVES², M. SALTZMAN³ AND W. OLBRIGHT¹
¹*Cornell University, Ithaca, NY;* ²*Cornell University, Philadelphia, PA;* ³*Yale University, New Haven, CT*

929. Powering An Implantable Microbolus Pump With A Multi-Layered Printed Circuit Coil 2:00
T.K. GIVRAD¹, D.P. HOLSCHNEIDER², W. MOORE³ AND J. MAAREK¹
¹*University of Southern California, Los Angeles, CA;* ²*University of Southern California, CA;* ³*CA*

Device Technologies: Single-Molecule Detection Devices

Friday, September 28 1:00PM - 2:30PM Hollywood Ballroom, Studio E

Co-Chairs: Tony Huang & Jeff Wang

930. Nanopore-Based Detection Of Antibody-Antigen And Antibody-Virus Interactions 1:00
J.D. URAM, K. KE, A.J. HUNT AND M. MAYER
University of Michigan, Ann Arbor, MI

931. Equilibrium Analysis Of A Molecular Probe Biosensor For Quantitative DNA Detection 1:15
P. WONG *University of Arizona, Tucson, AZ*

932. Biotransport Modeling: Lactate Biosensor Design 1:30
W. WANG AND D. BAKER
University of California, San Diego, La Jolla, CA

933. 3D Hydrodynamic Focusing With A 2D Planar Microfluidic Device For Single Molecule Detection 1:45
X. MAO, J.R. WALDEISEN AND T.J. HUANG
Pennsylvania State University, University Park, PA

934. Single-Molecule Detection From Nanoliter Samples In Recirculating Microfluidic Devices 2:00
C.M. PULEO¹, H.C. YEH¹, K. LIU² AND T. WANG¹
¹*Johns Hopkins University, Baltimore, MD;* ²*Johns Hopkins University, MD*

Neural Engineering: Nano Neural Technology I

Friday, September 28 1:00PM - 2:30PM Echo Park

Chair: Anupam Madhukar

935. Nanoscale Issues In The Development Of Probe Arrays For Chronic Cerebral Applications 1:00
H.P. NEVES
Interuniversity Microelectronics Center (IMEC), Leuven, Belgium

936. Bioactive Conducting Polymer Nanotubes For Neurite Outgrowth In Nerve Regeneration Applications 1:30

M. ABIDIAN¹, S.M. RICHARDSON-BURNS², J.M. COREY², D. TURER², D.C. MARTIN¹ AND D.R. KIPKE¹
¹*University of Michigan, Ann Arbor, MI;* ²*University of Michigan, MI*

937. Development-Dependent Outgrowth Of Neurons On Multicomponent Patterns Of L1 And N-Cadherin 1:45
P. SHI AND L. KAM
Columbia University, New York, NY

938. Nanoparticle Surface Properties Affect Distribution After Convection-Enhanced Delivery 2:00
A.J. SAWYER AND M. SALTZMAN
Yale University, New Haven, CT

Neural Engineering: Neural Coding and Signal Processing

Friday, September 28 1:00PM - 2:30PM Whitley Heights

Co-Chairs: Bartlett Mel & Nitish Thakor

939. Modeling Input-Output Property Of Single Neuron Using Random-Interval EPSP And Spike Train Data 1:00
U. LU¹, D. SONG² AND T.W. BERGER²
¹*University of Southern California, Los Angeles, CA;* ²*Los Angeles, CA*

940. Real-Time Neuronal Decoding For Individuated And Combined Finger Movements Of A Robotic Hand 1:15
V. AGGARWAL¹, S. ACHARYA¹, F. TENORE¹, R. ETIENNE-CUMMINGS¹, M.H. SCHIEBER² AND N.V. THAKOR¹
¹*Johns Hopkins University, Baltimore, MD;* ²*University of Rochester, Rochester, NY*

941. Preparatory Activity In PMd Neurons Reflects Obstacle Avoidance Plan During Arm Reaching Movements 1:30
Y.P. SHIMANSKY, T. KANG AND J. HE
Arizona State University, Tempe, AZ

942. Effect Of Serotonin (5-HT) On Sensory Information Conveyed By Populations Of Single Neurons 1:45
A. SCAGLIONE AND K.A. MOXON
Drexel University, Philadelphia, PA

943. Retinal Oscillations Carry Visual Information To Cortex 2:00
K. KOEPEL¹, X. WANG², Y. WEI², Q. WANG², V. VAINGANKAR², J. HIRSCH² AND F.T. SOMMER³
¹*Berkeley, CA;* ²*CA;* ³*University of California, Berkeley, Berkeley, CA*

944. A Novel Coding-Decoding Scheme In The Transfer Of Visual Information From Retina To LGN 2:15
B.W. MEL AND Y. WEI
University of Southern California, Los Angeles, CA

Orthopedic and Rehabilitation Engineering: Joint Biomechanics

Friday, September 28 1:00PM - 2:30PM Silver Lake

Co-Chairs: Thay Lee & Zong-Ming Li

945. A Computer-Controlled Joint Loading System For Biomechanics Research In A Rat Model 1:00
X. GU¹, D. LEONG², Y.H. LI², F. GUZMAN¹, H.B. SUN² AND L. CARDOSO¹
¹*City College of New York, New York, NY;* ²*Mount Sinai School of Medicine, New York, NY*

946. Biomechanics Of Scoliosis And Its Effects On Postmenopausal Women 1:15