

## CURRICULUM VITAE

### EBERHARD ERICH FETZ

#### Current appointments

Professor Emeritus, Department of Physiology and Biophysics and DXARTS  
Core Staff Emeritus, Washington National Primate Research Center  
University of Washington  
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Lab website: <https://depts.washington.edu/fetzweb/index.html>

#### Personal Data:

Date of Birth: February 5, 1940

Place of Birth: Zwenkau, Germany

Citizenship: United States

#### Education:

B.S. Rensselaer Polytechnic Institute, Troy, N.Y.; Physics, 1961

Ph.D. Massachusetts Institute of Technology, Cambridge, Massachusetts;  
Physics, 1966

Ph.D. Dissertation: Pyramidal Tract Effects on Spinal Cord Interneurons.

Thesis advisor: Prof. Patrick D. Wall

#### Postgraduate Training:

1957-59 Rensselaer Fellow, Physics Department, Rensselaer Polytechnic Institute, Troy,  
New York

1959-61 I.T.&T. Fellow, Physics Department, Rensselaer Polytechnic Institute, Troy, New  
York

1961-66 National Science Foundation Graduate Fellow, Physics Department,  
Massachusetts Institute of Technology, Cambridge, Massachusetts

1965 Neurosciences Program, Harvard Medical School

1966-67 Postdoctoral Fellow, Biology Department, Massachusetts Institute of Technology,  
Cambridge, Massachusetts

1967-69 Postdoctoral Fellow, Department of Physiology and Biophysics, University of  
Washington School of Medicine, Seattle, Washington

### Faculty Positions Held:

1969-75 Assistant Professor, Departments of Neurological Surgery and Physiology & Biophysics, University of Washington School of Medicine, Seattle, Washington

1969- Core Staff, Regional Primate Research Center, University of Washington, Seattle, Washington

1970-75 NINDS Teacher-Investigator Fellow

1975-80 Associate Professor, Department of Neurological Surgery and Physiology & Biophysics, University of Washington School of Medicine, Seattle, Washington

1977-78 Macy Faculty Scholar, Department of Physiology, Harvard Medical School and Department of Physiology, University of Göteborg

1980-2022 Professor, Department of Physiology and Biophysics, University of Washington School of Medicine

1987 Visiting Professor, Department of Physiology, Kyoto Prefectural University of Medicine, Kyoto, Japan

1995 -99 Head of Neuroscience Division, Regional Primate Research Center, University of Washington, Seattle, Washington

1999 - 2005 Associate Director for Neuroscience, Washington National Primate Research Center, University of Washington, Seattle, Washington

2002 Visiting Professor, College de France, Paris, France

2004-5 Fellow, Wissenschaftskolleg zu Berlin, Berlin, Germany

2010-2022 Adjunct Professor, Department of Bioengineering, University of Washington

2012-2015 Head of Neuroscience Division, Washington National Primate Research Center, University of Washington, Seattle, Washington

2013-2017 Affiliate Faculty, DXARTS, University of Washington

2017-2019 Adjunct Professor, DXARTS, University of Washington

2019-2022 Professor, DXARTS, University of Washington

2022- Professor Emeritus, Departments of Physiology & Biophysics and DXARTS, University of Washington

### Honors:

Sigma Xi

NINDS Teacher-Investigator Award, 1970-75

Josiah Macy Faculty Scholar Award, 1977-78

Sloan Research Fellow, 1972-74

NSF US-Japan Cooperative Science Program Award, 1985-86

Visiting Professor, College de France, Paris, France, 2002

Fellow, Wissenschaftskolleg zu Berlin, 2004-2005

NIH Javits Award 1986-1992 and 2006-2013

Associate, The Neurosciences Research Program, 2008-2015

Contributing member, Faculty of 1000, 2009-2012

Humboldt Research Award, 2010-2011

New York Academy of Sciences and Aspen Brain Forum first Prize in Neurotechnology, 2010

Fellow, American Association for the Advancement of Science, inducted 2/13/2021.

Marquis Who's Who, 2022.

### Hobbies:

Multimedia art  
Private pilot  
Scuba diving

### Organizations:

American Association for the Advancement of Science (life member and Fellow)  
American Society of Primatologist, 1977  
Society for Neuroscience (Program Committee, 1988-1991)  
International Association for the Study of Pain, 1974  
International Brain Research Organization  
Neural Control of Movement (Board Member, 1997-2001)

### Editorial Responsibilities:

Associate Editor, Neuroscience Letters, 1976 - 2001  
Member, Behavioral Neurosciences Study Section, NIH, 1985-89  
Editorial Board, Journal of Neurophysiology, 1986-1992; 1995 - 2003  
Board of Editors, Experimental Brain Research, 1986 - 2000  
Editorial Board, Somatosensory and Motor Research, 1988 - 1997  
Associate Editor, Somatosensory and Motor Research, 1997 - present  
Editorial Board, Journal of Computational Neuroscience, 1994 - 2017  
Editorial Board, Neural Computation, 1995 - present  
International Editorial Adviser, Japanese Journal of Physiology, 1999 – present  
Guest Editor, Neural Networks Special Issue on Brain-Computer Interfaces, 2008  
Associate Editor, Frontiers in Neuroprosthetics, 2008 – present  
Guest Editor, Special Topics issue on “Closing the loop around neural systems” Frontiers in Neuroscience, 2012.  
Reviewer for Nature, Science, PLoS, Neuron, Nature Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neural Engineering, etc.

### Special Local Responsibilities:

#### University

Physical Biology Curriculum Committee, 1971-73  
Graduate School Research Fund: Biomedical Science Research Project Committee, 1978-80  
Faculty Senate, 1985-87

#### School of Medicine

Research Proposals Study Section, Alcohol and Drug Abuse Institute, 1976-77

#### Department of Physiology & Biophysics

Teaching Evaluation Committees (Chairman six years)  
Graduate School Fund Committee (Chairman), 1984-85  
Issues in Neurobiology seminar series organizer, 1988-1998  
Chairman, Search Committee for Primate Neuroscientist faculty member, 2012.

#### Neurobiology and Behavior Interdisciplinary Program

Seminar series organizer, 1998-1999

#### Washington National Primate Research Center

Scientific Advisory Committee 1995-2000  
Search Committee Neuroscience Core Staff, member 1994-5

Search Committee for Director of RPRC 1995  
Head of Neuroscience Division 1995 - 99  
Chairman, Search Committee for Cognitive Neuroscientist Core Staff, 1997  
Associate Director for Neuroscience, 1999 – 2005  
Head of Neuroscience Division 2012-2015  
Scientific Steering Committee, 2012-2015  
Chairman, Search Committee for Cognitive Neuroscientist Core Staff, 2011-2013  
Search Committee for Director of WaNPRC, 2012-2013  
Allen Institute for Brain Science, Center Advisory Council, 2008  
Thrust Leader, (Experimental Neuroscience) Center for Sensorimotor Neural Engineering/  
Center for Neurotechnology (NSF-ERC) 2016 - 2022

#### Previous Research Support (selected)

Neural Control of Muscle Activity; Fetz (PI); NIH/NINDS RO1 NS12542  
09/30/1978 – 06/30/2023  
Washington National Primate Research Center; Sullivan (PI); NIH/NCRR RR00166  
5/1/16-4/30/26  
Center for Neurotechnology; Rao (PI); NSF Engineering Research Center; 07/11/2011-  
07/14/2021  
Vagus Nerve Stimulation to Augment Targeted Cortical Plasticity and Sensory Discrimination;  
Fetz (co-PI); DARPA 03/01/2018-06/10/2019  
Implantable Computers to Augment Brain Function; Fetz (PI); W. M. Keck Foundation 1/1/11-  
12/31/13  
Alfred P. Sloan Research Fellowship, 9/16/1972-9/15/1974.  
Neural Network Models of the Primate Motor System; Fetz (PI) Office of Naval Research,  
1/12/1988-6/30/1991.

#### Symposia Organized and Chaired

Symposium on "Properties of Single Cells in Vertebrate Motor Systems Revealed by Spike-  
Triggered Averaging"; Society for Neuroscience 8th Annual Meeting, St. Louis, MO, 1978  
Pacific Cascade Chapter of Society for Neuroscience Annual Meeting, Seattle, WA, 1981  
Symposium on "Cortical Involvement in Movement", XXIXth Congress of IUPS, Sydney,  
Australia, 1983  
Workshop on "Effectiveness of Synaptic Connections: New Evidence from the Ia-motoneuron  
Synapse"; Winter Conference on Brain Research, Vail, Colo., Jan 28-Feb 1, 1984  
International Symposium on Neural Control of Limb Movement (Satellite of XXXth Congress of  
IUPS); Seattle, WA, July 9-11, 1986  
Symposium on "Neural network modelling and mechanisms of distributed parallel processing"  
American Physiological Society Fall Meeting, San Diego, CA, Oct. 11- 15, 1987  
Symposium on "Mechanisms of Voluntary Movement", XXXI Congress of IUPS, Helsinki,  
Finland, July 9-14, 1989  
Symposium on "Neural network models of motor systems", Conference on Neural Control of  
Movement, Marco Island, Florida, April 6-11, 1991.  
Debate forum on "Does the cortex use temporal coding?" Fourth IBRO World Congress, Kyoto,  
Japan, July 9-14, 1995.

Symposium: Distinguishing Reflex Responses and Triggered Reactions. Sensory and Biomechanical Contributions to Posture and Gait, Cozumel, Mexico, April 13-16, 1997.  
Symposium on "Representation and Distributed Coding" Computational Motor Control Meeting, Key West, FL, April 19 - 22.  
Panel on "Spinal cord mechanisms mediating behavior: new perspectives" Neural Control of Movement Meeting, Kauai, HI, April 11-15, 1999.

#### Symposia Participation:

Winter Conference for Brain Research [first meeting], Tahoe City, California, January, 1968  
Neural Control of Motor Performance (IUPS Satellite); Zürich, Switzerland, August 7-8, 1971  
Autoregulation of Electrical Activity of the Brain; Santa Ynez, California, Aug. 1-4, 1972  
International Symposium on Pain; Issaquah, WA, May 21-26, 1973  
International Symposium on "Control of Posture and Locomotion"; Edmonton, Canada, Aug. 20-22, 1973  
NATO Symposium on "Biofeedback and Behavior"; Munich, Germany, July 27-30, 1976  
Winter Conference for Brain Research, Keystone, Colorado January 26, 1978  
IBRO Symposium on "Reflex Control of Posture and Movement"; Pisa, Italy, September 11-14, 1978  
European Neuroscience Meeting, Florence, Italy, September 5-8, 1978  
Taneguchi Symposium on "Neurobiological Basis of Learning and Memory"; Ohtsu-shi, Japan, Oct. 23-25, 1978  
Symposium on "Properties of Single Cells in Vertebrate Motor Systems Revealed by Spike-Triggered Averaging" (organizer and speaker); Society for Neuroscience 8th Annual Meeting, St. Louis, MO, Nov. 5-9, 1978  
Cold Spring Harbor Neurobiology Course; Long Island, NY, June, 1981  
Symposium on "Conditioning; Representation of Involved Neural Function"; Asilomar, CA, Oct. 25-27, 1981  
Behavioral Correlates of Identified Cortical Neuronal Types; Neuroscience Institute Conference, Rockefeller Univ., NY, June 14-16, 1982  
Multidisciplinary Approach to Motor Behavior; Zuoz Winterschool, Zuoz, Switzerland, 1982  
Dynamic Aspects of Neocortical Function, Salk Institute, La Jolla, CA, Oct. 3-7, 1982  
Physiological Society Symposium on "Synchrony of Discharge in the Nervous System", University College, London, England, March 28, 1983  
Symposium on "Functional Organization of Spinal Cord and its Descending Control", Canberra, Australia, August 22-26, 1983  
Symposium on "Cortical Control of Movement" (organizer), IUPS Physiology Congress, Sydney, Australia, September Aug 28 - Sept.2, 1983  
Invited participant, International Symposium on "Oculomotor and Skeletal Motor Systems", Düsseldorf Germany, Sept. 15 - 21, 1984  
Winter Conference for Brain Research, Vail, Colorado, Jan 26-Feb 2, 1985 (workshop organizer)  
Co-organizer, International Symposium on "Neural Control of Limb Movement", Seattle, WA, July 9 - 11, 1986  
Symposium on Neural Networks, Fogarty Center, National Institutes of Health, Bethesda, Nov. 17-19, 1986  
Winter Conference for Brain Research, Vail, Colorado, Jan 24-31, 1987.

Ciba Foundation Symposium on "Motor Areas of Cerebral Cortex", London, England, Feb. 23-26, 1987

Symposium on "Neurobiology of Learning", Tallahassee, FL, April 1-3, 1987

Symposium on "Neural network modeling and mechanisms of distributed parallel processing" (organizer), American Physiological Society Fall Meeting, San Diego, CA, Oct. 11- 15, 1987

Symposium on "Neural Information Processing Systems", Denver, CO Nov. 8-12, 1987.

Symposium on "Afferent Control of Posture and Locomotion", Rheinfelden, Switzerland, September 1-4, 1988.

Symposium on "Sensorimotor Integration", European Neuroscience Association Annual Meeting, Zürich, Switzerland, September 6, 1988.

International Symposium on "Neuroscience inspired by Pat Wall", Woods Hole, May 8-11, 1989.

Symposium on "Mechanisms of Voluntary Movement" (co-organizer and speaker), XXXI Congress of IUPS, Helsinki, Finland, July 9-14, 1989.

Goetz Symposium on Biocybernetics and Neuroinformatics, University of Zürich, Zürich, Switzerland, November 9-10, 1989.

IBRO Second Intensive Workshop on Basic Neuroscience, Shanghai, China, Sept. 11-22, 1989.

First Australian Conference on Neural Networks, Sydney, Australia, January 29-31, 1990 (invited keynote speaker).

International Symposium on "Neural Networks for Sensory and Motor Systems", Düsseldorf, Germany, March 22-24, 1990.

International Joint Conference on Neural Networks, San Diego, CA, June 17-21, 1990.

Symposium on "Controversies in Neurosciences: Motor Control", Portland Oregon, September 22-23, 1990.

Symposium on "Neural network models of motor systems" (organizer), Conference on Neural Control of Movement, Marco Island, Florida, April 6-11, 1991.

International Joint Conference on Neural Networks, Seattle, WA, July 8-12, 1991.

Workshop on "Neural Computation" European Neuroscience Association 14<sup>th</sup> Annual Meeting, Cambridge, England, September 8, 1991

Symposium on "Reaching and Manipulation" European Neuroscience Association 14<sup>th</sup> Annual Meeting, Cambridge, England, September 9-12, 1991

Symposium on "Neural network models of sensorimotor systems", Society for Neuroscience 21st Annual Meeting, New Orleans, LA, Nov. 10-15, 1991.

Symposium on "Neural Control of Movement in Vertebrates", Fondation Juan March, Madrid, Spain, Nov. 27-30, 1991.

Two symposia on motor control, Conference on Neural Control of Movement, Marco Island, Florida, April 21-25, 1992.

International Conference on "Functional Analysis of the Brain Based on Multiple-Site Recording" Aussois, France, Oct. 12-14, 1992.

VIII TMIN International Symposium on "Role of the Cerebellum and Basal Ganglia in Voluntary Movement", Tokyo, Japan, Nov. 17-20, 1992.

Winter Conference on Brain Research, Whistler B.C., Canada, January 23-30, 1993

Bat Sheva Seminar on "Neurons and Neuronal Networks in the Motor System", Jerusalem, Israel, March 14-25, 1993.

Gentner Symposium on "Neurophysiology and Neuroinformatics", Schellerhau, Germany, Oct. 17-22, 1993.

Symposium on "Cortical Control of Limb Movement" SUNY Health Science Center, Syracuse, New York, Nov. 13, 1993.

Winter Conference on Brain Research, Snowbird, Utah Jan 22-29, 1994.

Alberta Motor Control Meeting, Kananaskis, Alberta, Canada, March 25-27, 1994.

Symposium on "Dynamics of Neural Processing", Washington DC. June 6-8, 1994.

European Neuroscience Association Annual Meeting, Vienna, Austria, September 4-8, 1994.

Winter Conference on Brain Research, Steamboat Springs, Colorado, Jan 21-28, 1995.

Neural Control of Movement, Key West, Florida, April 18- 25, 1995

Conference on "Visuomotor Control", Montreal, Quebec, May 11 - 12, 1995

Fourth IBRO World Congress, (Symposium organizer), Kyoto, Japan, July 9-14, 1995.

Supraspinal Control of Movement in Cats and Primates" Panum Institute, Copenhagen, Denmark October 6-7, 1995

Workshop on Glutamate Toxicity in ALS, San Francisco, CA, January 18-19, 1996.

Neural Control of Movement, Cancun, Mexico, April 8-13, 1997

Sensory and Biomechanical Contributions to Posture and Gait, Cozumel, Mexico, April 13-16, 1997.

Symposium on "From Attention to Action", Center for Neural Science, NYU, New York, June 9-12, 1997

Novartis Foundation Symposium on "Sensory Guidance of Movement", London, England, Jan. 20 - 22, 1998.

International Titisee Conference on "The Role of Time in Neuronal Processing", Titisee, Germany, March 4 - 8, 1998.

Neural Control of Movement, Key West, FL, April 14-19, 1998.

Computational Motor Control Meeting, Key West, FL, April 19 - 22, 1998.

European Neuroscience Association meeting, Berlin, Germany, June 26- July 1, 1998.

UW/MSR Summer Institute on Intelligent Systems, Seattle and Friday Harbor Labs, WA, August 17-22, 1998

Winter School on "Neurophysics and Physiology of the Motor System", Les Houches, France, Feb. 7 – 13, 1999.

Neural Control of Movement Meeting, Kauai, HI, April 11-15, 1999.

International Workshop "Aspects of Neuronal Dynamics", Delmenhorst, Germany, April 5-9, 2000

Satellite Symposium: "Synchrony 2000", London, UK, June 23, 2000

Federation of European Neuroscience Societies, Brighton, UK, June 24-28, 2000

Symposium on "Command Signals from the Brain", University of Southern California, Los Angeles CA, July 8, 2000.

Workshop on "Mechanisms of Persistent Neural Activity", Banbury Center, Cold Spring Harbor Laboratory, Long Island, NY, October 1-4, 2000.

International Union of Physiological Sciences, Christchurch, New Zealand, August 26-31, 2001.

International Symposium on "Movement and Sensation", Cairns, Australia, Sept, 3-6, 2001.

Segefralk Symposium on "Principles of Spinal Cord Function, Plasticity and Repair", Ystad Saltsjöbad, Sweden, September 22-25, 2001.

Trimester in Computational Neuroscience: Functional representations and dynamics of neural assemblies, Institut Henri Poincare, Paris, France, March-April, 2002.

International Symposium on "Motor Control and Proprioception", Paris, France, July 9-12, 2002.

Neural Prosthesis Workshop, Bethesda, MD, October 21-23, 2003.

“In the Scientist’s Mind” Group artwork exhibit, Gallery at the Shoreline Center, Shoreline, WA  
May 3 – July 1, 2002.

International Symposium on “Multidisciplinary Approaches to Sensorimotor Integration”,  
Okazaki, Japan, March 15-18, 2004.

British Neuroscience Association, Brighton, England, April 4, 2005

American Society of Neurophysiological Monitoring Annual Meeting, Seattle, WA, May 4-7,  
2006

Symposium on "Physiology of brain-computer interfaces", Atlanta GA, October 13, 2006

Symposium on "Brain-Machine Interfaces", Kyoto, Japan, November 7-8, 2006.

2nd International Institute for Neuroscience of Natal Neuroscience Symposium, Natal, Brazil,  
February 22-25, 2007.

OIST Workshop on Cognitive Neurobiology, Okinawa, Japan, March 8-15, 2007

Pacific Cascade Chapter of Society for Neuroscience Spring Meeting, University of Washington,  
Seattle, WA April 6, 2007

Symposium on “Promoting Neural Plasticity”, Arizona State University, Tempe, AZ, Feb. 15,  
2008.

Christopher and Dana Reeve Foundation Spinal Cord Symposium, Atlanta, GA, May 9-11, 2008.

Workshop on “Real-time brain interfacing applications”, Mathematical Biosciences Institute,  
Ohio State University, Columbus, OH, May 12-15, 2008.

Symposium on Translational Neuroscience, University of Chicago, Chicago, Illinois, May 22-23,  
2008.

Pacific Northwest Center for Neural Engineering Workshop, invited keynote speaker, Microsoft,  
Redmond, WA, October 9-11, 2008.

Workshop on “Translational Research in Sensorimotor Integration and Transformation”,  
Washington DC, November 14–15, 2008.

Workshop on “Harnessing Neuroplasticity for Human Applications”, Washington DC, April 21-  
22, 2009.

Neural Control of Movement Satellite Meeting, Waikoloa, HI April 26-29, 2009

Inaugural Lecture, Neurosciences Research Program 75<sup>th</sup> Meeting, The Neurosciences Institute,  
San Diego, CA March 1-4, 2009

Keynote Address, Society for Neuroscience Northwest Chapter Meeting, Western Washington  
University, Bellingham WA, October 3, 2009

Neurosciences Research Program 76<sup>th</sup> Meeting, The Neurosciences Institute, San Diego, CA  
March 14-17, 2010

Meeting on “Analysis of Multi-electrode Neural Recordings and Modeling of Neuronal  
Ensemble Activity”, UCLA, Los Angeles, CA, May 8, 2010

Keynote Address, Lehman Symposium, University of Washington, Seattle, May 13, 2010

Fourth International Brain-Computer Interface Meeting, Asilomar, Monterey, CA, May 31-June  
4, 2010

AREADNE Conference, Santorini, Greece, June 17-21, 2010

Brain-Machine Interfaces Symposium, Ystad, Sweden, August 26-29, 2010

Aspen Brain Forum “Building Better Brains”, Aspen, CO September 23-25, 2010.

Brain Computer Interfacing in 2011, University Medical Center, Utrecht, The Netherlands, May  
20 & 21, 2011.

Neurosciences Research Program 77<sup>th</sup> Meeting, The Neurosciences Institute, San Diego, CA,  
April 15-17, 2012



The Versatile Brain: Structures, Functions and Pathologies, Inaugural Conference of the Institut de Neurosciences de la Timone, Marseille, France, September 20-21, 2012.

International Symposium on Cognitive Neuroscience Robotics, University of Washington, Seattle, WA, January 31-February 1, 2013.

The Neurosciences Institute, La Jolla, CA, March 12-13, 2013.

International Workshop on Clinical BMI Systems, Houston, TX, February 25-27, 2013.

Keynote Address, New Approaches to Nervous System Rehabilitation, Dallas, TX, April 26, 2013.

Organization for Human Brain Mapping Annual Meeting, Seattle, WA, June 16-20, 2013.

Symposium on Nano and Micro Systems, Seattle, WA, July 8, 2013.

Symposium on “Motor Control - from neural circuits and diseases to neuroprosthetics”  
Lausanne, Switzerland, August 28-30, 2013.

Barcelona Cognition, Brain and Technology Summer School, Barcelona, Spain, September 2-7, 2013.

ESF-FENS Conference on “The Dynamic Brain –The Neurobiology of Action”, Stresa, Italy, October 20-23, 2013.

Bial Foundation Symposium on “Behind and Beyond the Brain” Porto, Portugal, March 26, 2014. Keynote lecture.

Symposium on Sensorimotor Rehabilitation, University of Montreal, Canada, May 12, 2014, Plenary lecture.

Symposium commemorating Dr. George A. Ojemann, University of Washington, Seattle, WA September 26, 2014.

2014 Austin Translational Neuroscience Symposium, Austin, Texas, December 5-6, 2014. Keynote Address.

Real-time Functional Imaging and Neurofeedback, University of Florida, Gainesville, FL, February 12-13, 2015.

2015 International Workshop on Clinical Brain-Machine Interfaces, Tokyo, Japan, March 13-15, 2015.

British Neuroscience Association Meeting, Edinburgh, Scotland, April 12-16, 2015.

2015 Alberta Motor Control Meeting, Jasper, Alberta, Canada, September 25, 2015.

The Neuroscience Workshop Saclay: “New Concepts in Neuronal Pattern Encoding” Gif-Sur-Yvette, France, January 28-29, 2016.

Brain-Computer Interfaces Past Present and Future, Asilomar, California May 30-June 2, 2016. Keynote Address

Federation of Neuroscience Societies (FENS) meeting, Copenhagen, Denmark, July 5, 2016.

Primate Neuroscience Symposium, Deutsches Primatenzentrum, Göttingen, Germany, March 6-8, 2017

Neural Interfaces Conference 2018, Minneapolis MN, June 25-27, 2018

Neurofutures Conference, Seattle, WA June 29-29, 2018

Society for Neuroscience 2018, Special Lecture, San Diego, CA November 4, 2018

DARPA Targeted Neuroplasticity Training Symposium, Boulder CO, March 13-15, 2019.

Symposium on “Functional Significance of Oscillatory Brain Activity and Closed-loop Stimulation”, UC Davis, May 9, 2019.

H.D. Patton Departmental Retreat, Leavenworth WA, September 12-13, 2019.

Neuroprosthetics Symposium [international Zoom meeting] July 22, 2020

Neuroscience and Artificial Intelligence, University of Washington, Seattle, WA, September 27-30, 2022

Invited Lectures [other than symposia]:

University of California, San Francisco, California, September 7, 1977  
Johns Hopkins University, Baltimore, MD, October 14, 1977  
Brown University, Providence, RI, October 21, 1977  
Columbia University, New York, NY, November 28, 1977  
University of Massachusetts, Amherst, Mass, December 5, 1977  
Massachusetts Institute of Technology, Cambridge, Mass, December 15, 1977  
Harvard Medical School, Brookline, Mass., January 5, 1978  
Upstate Medical Center, SUNY, Syracuse, NY, January 15, 1978  
University College London, London UK, February 6, 1978  
University of Goteborg, Goteborg, Sweden, February 13 & 20, 1978  
Sherrington School of Medicine, London, May 2, 1978  
Karolinska Institute, Stockholm, Sweden, June 20, 1978  
Sechenov Institute, Leningrad, Russia, June 23, 1978  
University of Zurich, Zurich, Switzerland, July 5, 1978  
University of Fribourg, Fribourg, Switzerland, July 19, 1978  
University of Lausanne, Lausanne, Switzerland, July 20, 1978  
University of Heidelberg, Heidelberg, Germany, August 4, 1978  
Neurological Surgery, University of Washington, Seattle, WA, April 18, 1979  
University of Toronto, Toronto, Canada, May 27, 1980  
Emory University, Atlanta, Georgia, February 10, 1981  
Electrical Engineering Dept., University of Washington, Seattle, WA, November 7, 1990  
University of California, San Diego, San Diego, CA, May 16, 1991  
University of Calgary, Calgary Canada, March 24, 1994  
Marburg University, Marburg, Germany, May 29, 1997  
Sherrington School, St. Thomas' Hospital, London, June 6, 1997  
Emory University, Atlanta, GA, April 23, 1998  
Max Planck Institut für Hirnforschung, Frankfurt, Germany, June 23, 1998  
Johns Hopkins University, Baltimore, MD, Sept. 27, 1999  
California Institute of Technology, Pasadena, CA, Jan. 20, 2000  
University of Texas Medical Branch, Galveston, TX, Feb. 16, 2000  
Zen Center of Los Angeles, Nov. 11, 2000  
Institute of Neurology, Queen Square, London, Jan. 18, 2001  
Northwestern University, Chicago, IL May 3, 2001  
Northwestern University, Evanston, IL May 4, 2001  
College de France, Paris, France, March 12 & 26, 2002  
Institut Henri Poincare, Paris, France, April 3 & 10, 2002  
Institut des Sciences Cognitives, Lyon, France, April 5, 2002  
Duke University, Durham, NC, May 23, 2002  
Oregon Primate Center, Beaverton, OR, June 3, 2002  
University of Chicago, Chicago, IL, June 6, 2002  
University of Arizona, Tucson, AZ, Sept. 27, 2002  
University of Rochester, Rochester, NY, March 6, 2003  
State University of New York, Syracuse, NY, March 7, 2003  
University of Pittsburgh, Pittsburgh PA, August 21, 2003

University of Pennsylvania, Philadelphia PA, August 23, 2003  
Neural Prosthesis Workshop, NIH, Bethesda, MD, October 23, 2003  
Primate Research Institute, Inuyama, Japan, April 7, 2004  
National Institute for Physiological Sciences, Okazaki, Japan, April 8, 2004  
University of California, Los Angeles, CA, August 12, 2004  
Wissenschaftskolleg zu Berlin, Berlin, Germany, November 11, 2004  
University of Sussex, Brighton, England, April 5, 2005  
Max Planck Institut für Hirnforschung, Frankfurt, Germany, April 18, 2005  
Zentrum für Literaturforschung, Berlin, Germany, June 15, 2005  
Wadsworth Center, Albany, NY, June 8, 2006  
Brown University, Providence, RI, June 13, 2006  
Massachusetts Institute of Technology, Cambridge, MA, June 14&15, 2006  
Zen Center of Los Angeles, Los Angeles, CA, October 1, 2006.  
RIKEN, Tokyo, Japan, November 16, 2006  
Case Western University, Cleveland Ohio, December 7 & 8, 2006.  
California Institute of Technology, Pasadena, CA, January 12, 2007  
Bioengineering Department, University of Washington, Seattle, WA, February 8, 2007  
2<sup>nd</sup> Neuroscience Symposium, International Institute for Neuroscience of Natal, Natal, Brazil,  
February 23, 2007  
Okinawa Institute of Science and Technology, Okinawa, Japan, March 12, 2007  
Inaugural CCNS Invited Lecture, Washington University, St. Louis MO, April 25, 2007  
University of Southern California, Los Angeles, CA, May 17, 2007  
Neurological Surgery Grand Rounds, University of Washington, Seattle, WA, Sept. 12, 2007  
University of Maryland, Baltimore, MD, October 11, 2007  
The Johns Hopkins University, Baltimore, MD, October 12, 2007  
Neurological Sciences Institute, Beaverton, OR, October 23, 2007  
Northwestern University, Evanston, IL December 13, 2007  
Northwestern University, Chicago, IL December 14, 2007  
Physiology & Biophysics Departmental Seminar, University of Washington, Seattle WA,  
January 9, 2008  
Stanford University, Palo Alto, CA, February 7, 2008  
Physics Departmental Seminar, University of Washington, Seattle WA, March 10, 2008  
University of Tennessee, Memphis, Tennessee, March 25, 2008.  
Translational Neuroscience Symposium, University of Chicago, Chicago, Illinois, May 23, 2008  
University of California, Berkeley, California, June 16-17, 2008.  
Society for Neuroscience Symposium on “Advanced Neurotechnologies”, Washington DC,  
November 17, 2008.  
University of California, Irvine, California, January 8, 2009.  
Washington State University, Pullman, WA January 29, 2009.  
Neurosciences Research Program, San Diego, CA, March 2, 2009  
UW Photographers Group, Seattle, WA, April 14, 2009  
Department of Rehabilitation Medicine Seminar, University of Washington, Seattle WA, May  
11, 2009  
Eberhard-Karls-Universität Tübingen, Germany, May 19, 2009  
Bernstein Center, Freiburg, Germany, May 20, 2009  
University of Lund, Lund, Sweden, May 25, 2009  
University of Alberta, Edmonton, Alberta, Canada, July 20, 2009

Western Washington University, Bellingham, WA, October 3, 2009  
The Neurosciences Institute, La Jolla, CA, November 11, 2009  
The Miami Project, Miami, FL, December 2, 2009  
University of Utah, Salt Lake City, UT, December 18, 2009  
University of Florida, Gainesville, FL, February 4, 2010  
Emory University, Atlanta, GA, February 19, 2010  
The Neurosciences Institute, La Jolla, CA, March 16, 2010  
Oregon Health Sciences University, Portland, OR, April 27, 2010  
Lehman Symposium, Department of Rehabilitation Medicine, University of Washington, Seattle,  
May 13, 2010  
Eberhard-Karls-Universität Tübingen, Tübingen, Germany, June 30, 2010  
Grand Rounds, University of South Carolina School of Medicine, Charleston, South Carolina,  
November 4, 2010  
Zen Center of Los Angeles, Nov. 18, 2010  
Fred Samson Lecture, University of Kansas Medical School, Kansas City, KS, March 7, 2011  
Universität Zürich, Zürich, Switzerland, May 25, 2011  
École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, May 26, 2011  
Erasmus University, Rotterdam, Netherlands, June 6, 2011  
Max Planck Institute for Biological Cybernetics, Tübingen, Germany, June 20, 2011  
Patton Symposium, Leavenworth, WA, September 15, 2011  
Tomorrow Today Symposium, UW Medicine, Seattle, WA, September 21, 2011.  
Wadsworth Center, Albany, NY, October 20, 2011  
Keynote presentation, Carnegie Mellon "2012 Bioimage and Biosignal Processing Day",  
Pittsburgh, PA, February 21, 2012.  
50th Anniversary of Neurosciences Research Program invited talk, The Neurosciences Institute,  
La Jolla, CA, April 17, 2012.  
Seattle Robotics Society, Renton Technical College, Renton, WA, August 11, 2012.  
The Salk Institute, La Jolla, CA, August 27, 2012.  
IEEE EMBC meeting, San Diego, CA, August 28, 2012.  
PULSe seminar, Purdue University, West Lafayette, IN, November 12, 2012.  
University of Florida, Gainesville, FL, February 28, 2013.  
Neurosciences Institute, La Jolla, CA, March 27, 2013.  
Medtronic Company, Minneapolis, MN, May 1, 2013.  
University of Minnesota, Minneapolis, MN, May 2, 2013.  
Center for Integrative Brain Research, Seattle Children's Research Institute, Seattle, WA, June  
28, 2013.  
11<sup>th</sup> NAMIS Workshop, University of Washington, July 7-10, 2013.  
Italian Institute of Technology, Genoa, Italy, October 25, 2013.  
University of Parma, Parma, Italy, October 28, 2013.  
Bial Foundation Symposium on "Behind and Beyond the Brain" Porto, Portugal, March 26,  
2014. Keynote lecture.  
Symposium on Sensorimotor Rehabilitation, University of Montreal, Canada, May 12, 2014,  
Plenary lecture.  
Neurofutures Meeting, Seattle, Washington, June 17, 2014.  
Public Lecture on "Art and the Brain", University of Freiburg, Freiburg, Germany, July 14,  
2014.  
Brain Machine Interface Workshop, Freiburg, Germany, July 22, 2014.

Seminar, Bernstein Center, Freiburg, Germany, July 28, 2014.  
Japanese Society for Neuroscience, Yokohama, Japan, September 11, 2014.  
Keynote Lecture for “Frontiers of System Neuroscience of Motor Control” an “Honorary Symposium for Dr. Eberhard Fetz”, National Center of Neurology and Psychiatry, Tokyo, Japan, September 14, 2014.  
Keynote Lecture for Pavlovian Society Annual Meeting, Seattle, Washington, September 20, 2014.  
Invited lecture, Zhejiang University, Hangzhou, China October 28, 2014.  
Keynote Lecture for 2014 Austin Translational Neuroscience Symposium, Austin Texas, December 5, 2014.  
Keynote Lecture for symposium on Real-time Functional Imaging and Neurofeedback, University of Florida, Gainesville, FL, February 12-13, 2015.  
Seminar, National Institute of Physiological Sciences, Okazaki, Japan, March 11, 2015.  
Seminar, Advanced Telecommunications Research Institute TR, Kyoto, Japan, March 12, 2015.  
2015 International Workshop on Clinical Brain-Machine Interfaces, Tokyo, Japan, March 13-15, 2015.  
British Neuroscience Association Meeting, Edinburgh, Scotland, April 12-16, 2015.  
Two seminars, University of Newcastle, Newcastle, England. April 16 & 17, 2015.  
Seminar, University College London, England, April 27, 2015.  
2015 Alberta Motor Control Meeting, Jasper, Alberta, Canada, September 25, 2015.  
Seminar, University of Alberta, Edmonton, Alberta, Canada, September 29, 2015.  
Seminar, Columbia University, New York, N.Y. December 17, 2015.  
Seminar, Stanford University, Menlo Park, CA, April 11, 2016.  
Seminar, Bernstein Center, Berlin, Germany June 27, 2016  
Federation of Neuroscience Societies (FENS) meeting, Copenhagen, Denmark, July 5, 2016.  
Seminar, National Institutes of Health, Bethesda, MD, October 3, 2016.  
Seminar, New York University, New York, NY, October 31, 2016.  
Seminar, Feinstein Institute, Manhasset, New York, November 3, 2016.  
Seminar, University of California, San Francisco, CA, November 29, 2016.  
Seminar, Ernst Strüngmann Institute/Max Planck Institute, Frankfurt, Germany, March 15, 2017.  
Seminar, Harvard University, Cambridge, MA, October 17, 2017.  
Wyss Center for Bio and Neuroengineering, Geneva, Switzerland, March 9, 2018.  
Seminar, Burke Medical Research Institute, White Plains, NY July 17, 2018.  
Society for Neuroscience Special Lecture, San Diego, CA Nov. 4, 2018  
Zen Center of Los Angeles, Nov. 11, 2018  
UW Institute for Neuroengineering, University of Washington, Seattle, WA, April 10, 2019  
University of California Davis, May 9, 2019  
Seminar, University of Wyoming [via Zoom] January 27, 2022  
Seminar, National Center for Adaptive Neurotechnologies, Albany NY, [via Zoom] April 25, 2023

EBERHARD E. FETZ  
PUBLICATIONS

1. Fetz, E.E. and Gerstein, G.L. An RC model for spontaneous activity of single neurons. Quarterly Progress Report #71, Research Laboratory of Electronics, M.I.T., pp. 249-257, 1963.
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8. Courtney, K.R. and Fetz, E.E. Unit responses recorded from cervical spinal cord of awake monkey. Brain Research 53:445-450, 1973.
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12. Wyler, A.R., Fetz, E.E. and Ward, A.A., Jr. Injury-induced long-first-interval bursts in cortical neurons. Experimental Neurology 41:773-776, 1973.
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15. Wyler, A.R., Fetz, E.E. and Ward, A.A., Jr. Antidromic and orthodromic activation of epileptic neurons in neocortex of awake monkey. Experimental Neurology 43:59-74, 1974.
16. Wyler, A.R., Fetz, E.E. and Ward, A.A., Jr. Effects of operantly conditioning epileptic unit activity on seizure frequencies and electrophysiology of neocortical experimental foci. Experimental Neurology 44:113-125, 1974.
17. Fetz, E.E. Operant control of single unit responses and correlated motor response. In: OPERANT CONTROL OF BRAIN ACTIVITY, M.H. Chase, ed. UCLA: Brain Research Institute, pp. 61-92, 1974.

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19. Fetz, E.E. and Finocchio, D.V. Correlations between activity of motor cortex cells and arm muscles during operantly conditioned response patterns. Experimental Brain Research 23:217-240, 1975.
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- AND MEMORY, Y. Tsukada, and B. Agranoff eds. J. Wiley & Sons Inc., p. 113-122, 1980.
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