BOONSHOFT SCHOOL of MEDICINE
WRIGHT STATE UNIVERSITY

WRIGHT STATE UNIVERSITY
CELEBRATING
40 YEARS
1967–2007
MAKING A DIFFERENCE IN PEOPLE'S LIVES

Central Research Forum

Tuesday
October 23, 2007

Program

Apollo/Multipurpose Room	**12:00-2:00 p.m.**	**Poster Set-up**
Endeavor E156 Student Union	**2:00-2:10 p.m.**	**Howard Part, M.D.** Dean, Boonshoft School of Medicine *Welcome*
	2:10-2:45 p.m.	**Jack A. Bantle, Ph.D.** Vice President Research and Graduate Studies *Research Opportunities*
	2:45-3:15 p.m.	**Timothy C. Cope, Ph.D.** Professor and Chair of Neuroscience, Cell Biology and Physiology *Neural Regeneration: Not Synonymous with Recovery*
	3:15-3:45 p.m.	**Michael B. Hennessy, Ph.D.** Professor of Psychology *Proinflammatory Influences on Behavior During Stress*
	3:45-4:00 p.m.	**Break**
	4:00-4:30 p.m.	**Richard T. Laughlin, M.D.** Associate Professor of Orthopaedic Surgery *Prospects for Research Collaboration in Orthopaedic Surgery*
	4:30-5:00 p.m.	**Glenn C. Hamilton, M.D.** Professor and Chair of Emergency Medicine **Mark E. Gebhart, M.D.** Assistant Professor of Emergency Medicine *The H.E.L.P. Center: Taking Medicine to the Edge*
Apollo/Multipurpose Room	**5:00-7:30 p.m.**	**Reception and Poster Session**

Poster Session

1. **Zhihui Deng (Neuroscience, Cell Biology, and Physiology)**
   Shannon Hunt Romer, Timothy C. Cope, Robert E.W. Fyffe
   Small Conductance Ca^{++} Activated K^{+} (SK) Channels in Mammalian Alpha Motoneurons

2. **Valerie Siembab (Neuroscience, Cell Biology and Physiology)**
   C. A. Smith, N. A. Shneider, M. C. Berrocal, F. J. Alvarez
   Alterations in Ia Afferent Input Strength Modulates the Maturation of Synaptic Excitatory Input Organization on Renshaw Cells

3. **Valerie Siembab (Neuroscience, Cell Biology and Physiology)**
   G. Z. Mentis, R. Zerda, M.J. O'Donovan, F. J. Alvarez
   Murine Renshaw Cells Receive Monosynaptic Input from Sensory Afferents

4. **Tomas Garzon-Muvdi (Pharmacology and Toxicology)**
   S. Mao, K. Flues, M. DiFulvio, F. J. Alvarez, F. Alvarez-Leefmans
   Intracellular Cl-Regulation and NKCC1 Expression in Primary Afferent Neurons During Postnatal Maturation

5. **Thomas Brown (Neuroscience, Cell Biology and Physiology)**
   Amy Gultice, Kashmira Kulkarni-Datar
   Lineage-specific Cell Lines as Models for the Study of Placental Trophoblast Differentiation

6. **Thomas Hangartner (Biomedical, Industrial & Human Factors Engineering, Medicine)**
   Image-Based Strength Assessment of Bone

7. **Bino Varghese (Biomedical, Industrial & Human Factors Engineering)**
   Thomas N. Hangartner, Marvin E. Miller
   Assessment of Bone Strength through Finite Element Analysis Based on Radiographs of the Forearms

8. **Thomas Kannanayakal (Pharmacology and Toxicology)**
   Carol M. Garrett, Barbara E. Hull, James N. McDougal
   Development of a Method for Pharmacological Manipulation of Epidermis using Intradermal Injections in the Rat

9. **Teresa Garrett (Pharmacology and Toxicology)**
   A. R. Kessler, J. B. Lucot
   The Effects of CBDP and Sarin on Fear-Potentiated Startle and Y-Maze Performance in Mice

10. **Sudeepa Gupta (Wallace Kettering Neuroscience Institute)**
    Cemil Kirbas, Mehdi Adineh, Elizabeth Hardy, Douglas Lehrer, Jerald Kay
    Visual Images of Self-Injury: fMRI Correlates in Women with Borderline Personality Disorder

11. **Sudeepa Gupta (Wallace Kettering Neuroscience Institute)**
    Cemil Kirbas, Jamal Taha, Mehdi Adineh, Marvin Jackson, Ninad Mantri
    Feasibility of Fused Diffusion Tensor Imaging (DTI) with Functional MRI (fMRI) for Pre-surgical Planning of Gamma Knife Procedures; our initial experience

12. **Subbaraju Budharaju (Surgery)**
    Lawrence J. Prochaska, Anthony J. Pothoulakis, Curtis J. Wozniak, Shawn M. Gargac, Rebecca J. Darner, Scott Kerns, Mark P.Anstadt
    Non-blood Contacting Cardiac Actuation Attenuates Right Ventricular Proapoptotic Signaling in the Acutely Failing Heart

13. **Shihong Mao (Pharmacology and Toxicology)**
    H.I. Rocha-Gonzalez, F. Alvarez-Leefmans
    Na^+, K^+, $2Cl^-$ Cotransport and Other Mechanisms Determining Intracellular Cl^- in Rat Primary Afferent Neurons

14. **Shere' Myers (Biochemistry and Molecular Biology)**
    G. Liu, J. Bissler, R. Sinden, M Leffak
    Triplex-Forming Polypurine. Polypyrimidine Sequences Generate an Orientation-Specific Replication Fork Barrier in Vivo

15. **Sheeba Mesghali (Community Health)**
    Elvira Jaballas, Carla Classen, Adrienne Stolfi, Johanna Hadley, Marianne Urban, Dorothy Clark
    Parents' Perceptions of Their Children's Weight, Eating Habits and Physical Activities at Home and at School

16. **Ross Schumer (Orthopaedic Surgery)**
    Lynn Crosby, Kenny Edwards, Dominic Sprott
    Risk Factors for Transfusion in Shoulder Arthroplasty

17. **Rory Stuart (Surgery)**
    Justin Fox, Mark Bowyer
    Nephrolithiasis as a Major Contributor to DNBI in Iraq

18. **Robert Carlson (Community Health/CITAR)**
    Rocky Sexton, Jichuan Wang, Russel Falck, Carl Leukefeld, Brenda Booth
    Predictors of Substance Abuse Treatment Entry among Rural Illicit Stimulant Users

19. **Richard Laughlin (Orthopaedic Surgery)**
    Brayan A. Booth, R. Justin Mistovich, Martin Janout, Harold F. Stills
    Fatty Infiltration of the Gastrosoleus Muscle Complex after Lengthening Procedures

20. **Ramakrishna Kommagani (Biochemistry and Molecular Biology)**
    Madhavi P. Kadakia
    Induction of VDR Expression upon DNA Damage is p73 Dependent

21. **Peter K. Lauf (Pathology/Cell Biophysics)**
    Sandeep Misri, Ameet A. Chimote, Sameer Ali, Pooia Fattahi, Norma C. Adragna
    Properties of Hyposmotically Activated K Channels in Human Lens Epithelial Cells (FHL124 LECs)

22. **Paul Koles (Pathology)**
    Stuart Nelson, Adrienne Stolfi, Dean Parmelee
    Impact of Team-Based Learning on Second-Year Medical Students' Performance on Pathology-Based Exam Questions

23. **Paul Sensiba (Orthopaedic Surgery)**
    Indresh Venkatarayappa, Carrie L DeHoff, Alison L. Manternach, James C. Binski, Richard T. Laughlin, Michael J. Prayson
    A Survey of Patient Opinions Regarding the Use of Reprocessed External Fixation Components

24. **Patrick S. Dib (Surgery)**
    Rendong Quang, Todd L. Hicks, Andrea Hoffmann
    Role of Selective AT2 Receptor Activation in the Prevention Therapy of Melanoma

25. **Norma Adragna (Pharmacology and Toxicology)**
    Peter K. Lauf
    Functional Regulation of K-Cl Cotransport by the Nitric Oxide Pathway, Vasoconstrictors and Modulators of the Contractile Apparatus in Vascular Smooth Muscle Cells

26. **Norma Adragna (Pharmacology and Toxicology)**
    Jing Zhang, Peter K. Lauf
    Functional Characteristics of K-Cl Cotransport (COT) in Vascular Smooth Muscle Cells (VSMCs)

27. **Nicole Borges (Community Health)**
    Dean X. Parmelee, Dan DeStephen
    Medical Students' Attitudes about Team-Based Learning in a Pre-Clinical Curriculum

28. **Nicole Borges (Community Health)**
    Scott S. Meit, Larry A. Early
    Medical Students and the General Population: A Comparison of Personality Factors between Men and Women

29. **Nicole Nichols (Neuroscience, Cell Biology and Physiology)**
    Lynn K. Hartzler, Jay B. Dean, Robert W. Putnam
    Chemosensitive Response of Individual Nucleus Tractus Solitarius (NTS) Neurons from Adult Rats

30. **Nicole Zanin (Geriatrics)**
    Larry Lawhorne
    The Conceptualization of Delirium in the Hospital Setting

31. **Michael Markus (Medicine)**
    Patricia Hudes, Academic Affairs
    Muddy Waters: Increasing Student Questions through Anonymity

32. **Melissa A. Bautista (Neuroscience, Cell Biology and Physiology)**
    A.S.Deardorff, R.E.W. Fyffe
    Synaptic Ultrastructure of the Endbulbs of Held of Normal and Deaf (dn/dn) Mice

33. **Meghna Jani (Biochemistry and Molecular Biology)**
    Steven J. Berberich
    Transcriptional Regulation of LAMB3 by the p53 Pathway

34. **Meghan Makley (Biochemistry and Molecular Biology)**
    Michael N. Kent, Nicholas V. Reo, Gary Jahns, Nicholas DelRaso, Darrel R. Boverhof, Lyle D. Burgoon, D. Jump, Timothy R. Zacharewski
    Effects of TCDD on Liver Lipid Metabolism - Mouse vs. Rat

35. **MaryJo Kerns (Dermatology)**
    Caroline McNicholas, Michael P Heffernan
    Medical Dermatology Society Cooperative Trials Group Update: Advances in Treatment for Pyoderma Gangrenosum, Cutaneous Sarcoidosis, Severe Lichen Planus

36. **Marwan Dib (Wallace Kettering Neuroscience Institute and Dept of Psychiatry)**
    Michael Kent, Sehul Shah, Mehdi Adineh
    Magnetic Resonance Spectroscopy and Multiple Sclerosis

37. **Marjorie Morgan (Biological Sciences)**
    Larry Arlian, DiAnn Vyszenski-Moher, Denada Sharra
    Identification of a Pan-antigen of Storage and House Dust Mites

38. **Larry Arlian (Biological Sciences and Pathology)**
    Marjorie Morgan, DiAnn Vyszenski-Moher, Kevin Peterson
    Extract of Stored Product Mites and House Dust Mites Modulate the Function of Normal Human Epidermal Keratinocytes

39. **Kevin Kelley (Biochemistry and Molecular Biology)**
    Steven J. Berberich
    Regulation of the Tumor Suppressor FHIT by the p53 Pathway

40. **Kenneth G. Frey (Neuroscience, Cell Biology and Physiology)**
    Nancy J Bigley, Howard M. Johnson
    Herpes Simplex Virus I Obstructs the Type II Interferon Pathway in Keratinocytes by Induction of Suppressor of Cytokine Signaling 1

41 **Kathleen Dominguez (Neuroscience, Cell Biology and Physiology)**
    Z. Deng, S. Romer, T.C. Cope, R.E.W. Fyffe
    Modulation of Kv2.1 Channel Localization on Spinal Motoneurons Following Peripheral Nerve Injury

42. **Katherine Szczublewski (Pharmacology and Toxicology)**
    Eric Romer, Courtney Sulentic, Saber M. Hussain, John J. Schlager
    Immunotoxicity of Silver Nanoparticles in Lymphocyte Cell Lines

43. **Kashmira Kulkarni-Datar (Neuroscience, Cell Biology and Physiology)**
    Amy Gultice, Thomas L. Brown
    Gradient Oxygen Differentially Regulates Trophoblast Giant Cell Differentiation

44. **Justin Fox (Surgery)**
    Raymond Harshbarger, Carlos Saint-Hilaire Lockward, Juan Perez-Bernal
    Improving Cleft Care in the Third World: Remote Follow-Up after a Humanitarian Mission to the Dominican Republic

45. **James Lucot (Pharmacology and Toxicology)**
    Shenika Poindexter, Steven Baird, Moimir Mach
    Low Dose Sarin Suppresses Dopamine Function in Selected Brain Regions: Relevance to Fear Potentiation of Startle

46. **James Olson (Emergency Medicine)**
    James Leasure
    ATP-mediated Cell Volume Regulation During Oxidative Stress

47. **Ian Wenker (Neuroscience, Cell Biology and Physiology)**
James Olson
Electrophysiology of Human Astrocytoma Cells in Isoosmotic and Hypoosmotic Conditions

48. **Guoqi Liu (Biochemistry and Molecular Biology)**
John J. Bissler, Richard R. Sinden, Michael Leffak
Unstable Spinocerebellar Ataxia Type 10 (ATTCT) (AGAAT) Repeats are Associated with Aberrant Replication at the ATX10 Locus and Replication Origin-Dependent Expansion at an Ectopic Site in Human Cells

49. **Gary Ventolini (Obstetrics and Gynecology)**
Ran Neiger, Jiri Sonek, Terrence Dillon, Luissa Kiprono, David McKenna, Christopher Croom
Fetal Echocardiography versus Targeted Second Trimester Sonogram for the Assessment of Cardiac Anatomy in Pregnancies Complicated by Pre-gestational Diabetes

50. **Gary Ventolini (Obstetrics and Gynecology)**
Michael S. Baggish
Lichen Sclerosus: Subdermal Steroid Injection Therapy. A Large, Long Term Follow-Up Study

51. **Francisco Alvarez (Neuroscience, Cell Biology and Physiology)**
David Gonzalez-Forero
Maturation of $GABA_A$ Synapses on Renshaw Cells

52. **Francisco Alvarez (Neuroscience, Cell Biology and Physiology)**
Eileen FitzSimons, Briggitte Van Zundert. Martha Constantine-Paton, Robert Brown Jr
Alterations in the Renshaw Cell Recurrent Inhibitory Circuit in the G93A SOD1 Mouse Model of ALS

53. **Dawn Wooley (Neuroscience, Cell Biology and Physiology)**
Jai Marathe
Primary Human Eosinophils are Highly Susceptible to Productive Infection by X4 HIV-1

54. **Dawn Wooley (Neuroscience, Cell Biology and Physiology)**
R. Jeffery Taylor, Jai Marathe
Increased Cytokine Gene Expression in HIV-1-Infected Eosinophilic Cells

55. **Dan Halm (Neuroscience, Cell Biology and Physiology)**
Jin Zhang, Tianjiang Liao, Susan Halm
Adrenergic Activation of K Secretion in Guinea Pig Distal Colon Involves beta-Receptors in Discrete Membrane Domains

56. **Crystal Stuckey (Neuroscience, Cell Biology and Physiology)**
James E. Olson, Dominic D'Agostino
Hypoosmotic Sweeling of Rat C6 Glioma Cells Causes Cell Death via Oxidative Stress

57. **Craig Murdock (Biomedical Engineering)**
K Szczublewski, A. Schrand, D. Mattie, J Schlager, S Hussain, H Duhart, S Ali
Dopamine Depletion in Rat Adrenal Gland (PC-12) Cells After Exposure to Copper Nanoparticles

58. **Courtney Smith (Neuroscience, Cell Biology and Physiology)**
N.A. Shneider, M.C. Berrocal, F.J. Alvarez
Influence of Sensory Afferents and Motoneurons on the Developmental Regulation of Calbindin and Parvalbumin Expression in Spinal Interneurons

59. **Courtney Smith (Neuroscience, Cell Biology and Physiology)**
V.C. Siembab, M.C. Berrocal, M. Goulding, F.J. Alvarez
Postnatal Diversification of V1-Derived Interneurons

60. **Christine Rapp (Pharmacology and Toxicology)**
Kathryn E. Irwin, Robert D. Grubbs, James B. Lucot
Neuronal Damage in Mice over Time after Injection with CBDP and Sarin

61. **Christina Wicker (Neuroscience, Cell Biology and Physiology)**
Kashmira Kulkarni-Datar, Sanjay K. Srivastava, Thomas L. Brown
Sensitization to Trail in Pancreatic Adenocarcinomas by BITC

62. **Chanel Hagler (Neuroscience, Cell Biology and Physiology)**
Kashmira Kulkarni-Datar, Ben Southerland, William Grunwald, David Cool, Daniel Ketcha, Thomas L. Brown
Effect of Novel Cell Death Inhibitors on Apoptosis

63. **Brooke Andrews (Biochemistry and Molecular Biology)**
Keven Huang, Mark Jackson, Steven J. Berberich
Regulation of p53 by Mdm2 and MdmX

64. **Betsy Liliana Cote de Bejarano (Community Health)**
Sara Paton, Vivian Koob, Marjorie McLean
Retrospective Comparative Analysis of the Socio-demographic Characteristics of Pregnant Abortion-minded Clients versus Pregnant non-Abortion-Minded Clients in a Crisis Pregnancy Center in Montgomery County, Ohio

65. **B. Laurel Elder (Pathology)**
Marjorie Morgan, Larry Arlian
Interaction of Sarcoptes Scabiei and Inflammatory Mediators with Human Microvascular Dermal Endothelial Cells

66. **Asif Chowdhury (Biochemistry and Molecular Biology)**
    M. Kemp, N. Katrangi, P. Bubulya, M. Leffak
    Characterization of the C-Myc DNA Unwinding Element Binding Protein Due-B

67. **Amy Kelley (Biochemistry and Molecular Biology)**
    Kevin Kelley, Meldrick Mpagi, Steven J. Berberich
    Yippie-like 3 is a Novel p53 Regulated Gene

68. **Amit Bhatt (Pediatrics)**
    Troy Baker, Tyson Brown, Amit Bhatt, Mark Rowin, Adrienne Stolfi, Patrick Roth, Sue Ciarlariello
    Treatment of Respiratory Distress in a Pediatric ICU with High Flow, High Humidity Oxygen Delivery

69. **Ameet Chimote (Cell Biophysics)**
    Norma C. Adragna, Peter K. Lauf
    Chloride Determination in Human Lens Epithelial Cells (B3) by a Fluorescent Dye

70. **Adam S. Deardorff (Neuroscience, Cell Biology and Physiology)**
    R.E.W. Fyffe
    Expression of Calretinin in the MNTB of Normal Hearing and Congenitally Deaf Mice

71. **Sapna Varia (Biomedical Sciences)**
    Zhihui Deng, Alok Sharma, Tom Bublya, Paula Bubulya
    Elucidating the Role of BTF in Pre-MRNA Transcription and Splicing

72. **Alok Sharma (Biomedical Sciences)**
    Sapna Varia, Athanasios Bubulya, Paula A. Bubulya
    Probing Functions for Son in Nuclear Structure and Gene Expression

73. **Lawrence Prochaska (Biochemistry and Molecular Biology)**
    R. Ryan Geyer
    Modeling a Human Mitochondrial Disease Mutation: Deletion of Helix VI in Subunit III of Cytochrome c Oxidase Results in an Enzyme with Modified Functional Activities