Other Biological Fields

OB1

CHARACTERIZATION OF EPITHELIAL SODIUM CHANNEL ALPHA SUBUNIT TRANSCRIPTS AND THEIR CORRESPONDING MRNA EXPRESSION LEVELS IN DAHL S VERSUS R RATS' KIDNEY CORTEX.

MF Shehata, FHH Leenen, F Tesson, University of Ottawa Heart Institute. **Source of Research Funds:** CIHR, University of Ottawa, OGSST.

OB2

OVEREXPRESSION OF HUMAN PROEGF CYTOPLASMIC DOMAIN CAUSES REDUCTION IN BODY AND ORGAN WEIGHT IN TRANSGENIC MICE.

Aleksandra Glogowska1, Ekkehard Weber2*, Cuong Hoang-Vu3*, Ana A. Gratao4*, Eckhard Wolf4*, Marlon R. Schneider4*, Thomas Klonisch1, 1Dept. Human Anatomy & Cell Science, U of Manitoba, Winnipeg, R3E 0W3, Canada; Depts. of 2Physiological Chemistry & 3Surgery, MLU Halle, Halle, D-06097, Germany; 4Institute of Molecular Animal Breeding and Biotechnology, Gene Center, U of Munich, Munich, Germany. **Source of Research Funds:** Research found by German Cancer Research Council & Manitoba Health Research Council (MHRC).

OB3

ENVIRONMENTAL TOXINS INDUCE METABOLIC AND STRUCTURAL CHANGES IN IMMORTALIZED HUMAN ENDOMETRIAL CELLS.

Sabine Hombach-Klonisch1, Marco Peich2, Aleksandra Glogowska1, Anja Seifert2,Thomas Klonisch1 1Dept. of Human Anatomy and Cell Science, University of Manitoba, Faculty of Medicine, 130 Basic Medical Science Building, Winnipeg, MB, R3E 0W3, Canada; 2Dept. of Anatomy and Cell Biology, University of Halle, Halle, D-06097, Germany. **Source of Research Funds:** Research funding by Wilhelm Roux Research Fund, Medical Faculty MLU Halle.

OB4

ESTROGEN ENHANCES THE INVASIVE POTENTIAL IN HUMAN THYROID CARCINOMA CELLS.

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OB5

DETECTION AND CHARACTERIZATION OF SURFACTANT PROTEINS IN EXHALED HUMAN BREATH.

Xietao Xie[1], B.D.S., M.D., H. Pasterkamp[2,4], M.D., and J.E. Scott[3,4], Ph.D. [1] Faculty of Dentistry, [2]Professor, Pediatrics & Child Health, [3] Department of Oral Biology, University of Manitoba, [4] Biology of Breathing Group,Manitoba Institute of Child Health, Winnipeg. **Source of Research Funds:** NSERC, Manitoba Institute of Child Health and Manitoba Medical Service Foundation.

OB6

ROLE OF PHD2 IN THE INTERFERENCE OF AHR AND HIF-1ALPHA SIGNALLING.

Anja Seifert*, Dörthe M. Katschinski, Sarah Tonack, Bernd Fischer and Anne Navarrete Santos Department of Anatomy and Cell Biology, Martin Luther University Faculty of Medicine, D-06097, Germany. **Source of Research Funds:** FOR 466/1-1/2, DFG GK 416/3, Wilhelm Roux Programme of Martin Luther University.

OB7

INTERACTIONS OF PEPTIDES WITH SINGLE-WALLED CARBON NANOTUBES AND ITS APPLICATIONS.

Zhengding Su, Kenneth Mui, Elisabeth Daub. Tong Leung and John Honek, Department of Chemistry, University of Waterloo, Waterloo, ON N2L 3G1, Canada. **Source of Research Funds:** NSERC NanoIP.

Nanomedicine

N01

E. COLI AS INTELLIGENT DRUG DELIVERY MACHINES: POSSIBILITIES AND PERSPECTIVES.

Prasanna Bhomkar1, Wayne Materi1, Valentyna Semenchenko1 and David Wishart1,2 1 National Institute for Nanotechnology, 2 Department of Computing and Biological Sciences, University of Alberta, Edmonton, AB T6G 2M9.

N02

FLUORESCENT NANOPARTICLES FOR NEUROIMAGING.

Angela O. Choi*, Maik Behrendt*, Manasi P. Jain* and Dusica Maysinger*, Department of Pharmacology and Therapeutics, McGill University, Montreal, QC, Canada. **Source of Research Funds:** CIHR, JDRF, NSERC.

N03

QUANTUM DOT DISTRIBUTION IN BLOOD VESSELS OF THE CHICKEN EMBRYO CHORIOALLANTOIC MEMBRANE.

Aisling A Clancy and David T. Cramb, Department of Chemistry, Univeristy of Calgary. **Source of Research Funds:** NanoIP.

N04

EFFECT OF THE NANOSCALE LIPID ARRANGEMENTS ON THE FUNCTION OF LUNG SURFACTANT.

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N05

RGD ROSETTE NANOTUBES INDUCES MAPKINASE SIGNALING CASCADE IN HUMAN AIRWAY EPITHELIAL CELLS.

Sarabjeet S. Suri[a], Hicham Fenniri[b] and Baljit Singh[a], [a]Department of Veterinary Bio-Medical sciences, Western College of Veterinary Medicine, University of Saskatchewan, 52 Campus drive, Saskatoon, SK, S7N 1B4, Canada. [b]National Institute for Nanotechnology, University of Alberta, 11421 Saskatchewan Drive, Edminton, AB, T6G 2M9, Canada.

N06

BIOCHEMISTRY IN BACTERIOFERRITIN.

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N07

EVALUATION OF NANOPARTICLE TOXICITY USING RAINBOW TROUT CELLS IN CULTURE.

M.R. Bufalino1, J. Beitz1, B. Pietrobon2, K. Hartlen2, V. Kitaev2 and L.E. J. Lee1, 1Department of Biology & 2Department of Chemistry, Wilfrid Laurier University, Waterloo, ON. **Source of Research Funds:** NSERC.

N08

SENSITIVITY MODULATION OF CARBON-NANOTUBE CHEMICAL SENSORS VIA QUANTUM DOT HETEROSTRUCTURES.

Cosmin Laslau,Benjamin Mahar, and Yu Sun; Advanced Micro and Nanosystems Lab; University of Toronto. **Source of Research Funds:** NSERC.

N09

SCANNED PROBE MICROSCOPY CHARACTERIZATION OF FIBRONECTIN BINDING CONFORMATIONS ON SELF-ASSEMBLED MONOLAYER SURFACES.

Jane Cheung*, Melissa Paulite*, Ruby Sullan*, and Adrienne Tanur* (SPONSORED BY Gilbert Walker), Department of Chemistry, University of Toronto, Toronto, Ontario, M5S 3H6. **Source of Research Funds:** Canadian Institute for Health & Research.

Metabolomics

M01

EFFECT OF HATHA YOGA ON DIURNAL CHANGES OF SALIVARY ADRENAL AND GONADAL HORMONES.

Baek Yong-Su, Kim Yu-Sub, Kim Dong Hee, Lee Ha-Yan, Kim Dae-Yeol, Jung Hea-Mim, Shin Se-Hoon, Jang Sun-Woong, Cho Yun-Shin (Chonnam National Univ. South Korea).

M02

MICROSOME-BASED METABOLITE IDENTIFICATION FOR EXPANDING THE HUMAN METABOLOME MS/MS DATABASE.

Melisa Clements* and Liang Li*, Department of Chemistry, Faculty of Science, University of Alberta, Edmonton, Alberta, T6G 2G2. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M03

TEXT ANALYSIS IN THE HUMAN METABOLOME PROJECT.

Roman Eisner, Craig Knox, Dean Cheng, Russ Greiner, and David Wishart,Department of Computing Science, University of Alberta, Edmonton, AB T6G 2E8. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M04

PREDICTION OF DIETARY-INDUCED INSULIN RESISTANCE IN MICE BY TARGETED PROFILING OF MAGNETIC RESONANCE SPECTRA.

Gavin Duggan1, Aalim Weljie1, Hans Vogel1, Jane Shearer2 1. Faculty of Biological Sciences, University of Calgary, 2. Faculty of Kinesiology, University of Calgary. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.. CIHR.

M05

METABOLOMICS AND THE HUMAN METABOLOME PROJECT.

David Wishart*, Liang Li*, Russ Greiner*, Brian Sykes*, Fiona Bamforth*, Derrick Clive*, Ian Forsythe*, and Hans Vogel*, University of Alberta, Edmonton, Alberta, T6G 2E8, and University of Calgary, Calgary, Alberta, T2N 1N4. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M06

FLOWING JUICES: AN INVESTIGATION OF URINE AND PLASMA METABOLITES.

David Duong Hau and David Wishart, Department of Computing Science, University of Alberta. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M07

IDENTIFICATION AND QUANTIFICATION OF THE HUMAN CSF METABOLOME.

Michael J. Lewis, Joshua A. Morrissey, Kevin G. Jeroncic, David S. Wishart, Department of Computing Science, University of Alberta, Edmonton, AB, Canada. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M08

OPTIMIZATION OF SOLID PHASE EXTRACTION FOR METABOLOMICS APPLICATION.

Avalyn Lewis* and Liang Li*, Department of Chemistry, University of Alberta, Edmonton, Alberta, T6G 2G2. **Source of Research Funds**: Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M09

QUANTITATIVE ANALYSIS OF METABOLITE CONCENTRATIONS IN HUMAN URINE SAMPLES USING 13C{1H} NMR SPECTROSCOPY.

Rustem Shaykhutdinov1*, Glen MacInnis*, Aalim Weljie1,2*, and Hans Vogel1, 1Metabolomics Research Centre, University of Calgary, Calgary, Alberta, T2N 1N4, 2Chenomx Inc, Edmonton, Alberta, T5K 2J1. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M10

THE HUMAN METABOLOME LIBRARY.

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M11

AUTOMATIC METABOLITE IDENTIFICATION IN BIOFLUIDS USING 2D-TOCSY SPECTROSCOPY.

Jianguo Xia, Mike Lewis, and David Wishart. Department of Biological Sciences and Computing Science, University of Alberta, Edmonton, AB T6G 2E9. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M12

METABOLOMIC PROFILE OF HUMAN URINE GENERATED BY FTICR-MS.

Yeping Xiong* and Liang Li*. Department of Chemistry, University of Alberta, Edmonton, Alberta T6G 2G2, Canada. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M13

IMPROVING METHODOLOGY FOR MICROSOME-BASED METABOLITE IDENTIFICATION.

Azeret Zuniga*, Melisa Clements* and Liang Li*, Department of Chemistry, Faculty of Science, University of Alberta, Edmonton, Canada, T6G 2G2. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M14

HUMAN SERUM METABOLOMICS STUDIED BY 1H-NMR.

Jun Peng, David Duong Hau, Jeff Xia, Mike Lewis, David Wishart, Department of Computing Science, University of Alberta. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M15

MetaboLIMS: A GENERAL LABORATORY INFORMATION MANAGEMENT SYSTEM FOR METABOLOMICS.

Nelson Young, Kevin Jewell, David Block, Craig Knox, Peter Tang, Russ Greiner, David Wishart, Dept. of Computing Science, University of Alberta, Edmonton, AB. **Source of Research Funds:** Genome Alberta, Genome Canada, CFI, ISRIP, University of Alberta, AICML, Chenomx Inc.

M16

THE EFFECT OF VITAMIN E I.M INJECTIONS ON PFK ACTIVITY IN SLOW AND FAST-TWITCH MUSCLES OF CRITICALLY ILL RATS.

David Bissonnette[1] and Mary Hadley[2]*, [1] Dept of Family Consumer Science, [2] Dept of Geology & Chemistry, Minnesota State University, Mankato 56001. **Source of Research Funds:** Minnesota State University, Mankato Faculty Research grant.

M17

THE INFLUENCE OF NICOTINE ON DMSO-INDUCED HUMAN LEUKEMIC PROMYELOCYTES AND SUBSEQUENT EFFECTOR FUNCTION.

Minqi Xu[2], David A. Scott[1], Kan-Zhi LiU[2,4], and J. Elliott Scott[2,3]*. Oral Health and System Disease, University of Louisville School of Dentistry, Louisville, Kentucky, USA; Dept. of Anatomy, University of Manitoba and 4.Institute for Biodiagostics, National Research Council, Winnipeg, Canada. **Source of Research Funds**: NSERC/ CIHR/ COC/ MICH.