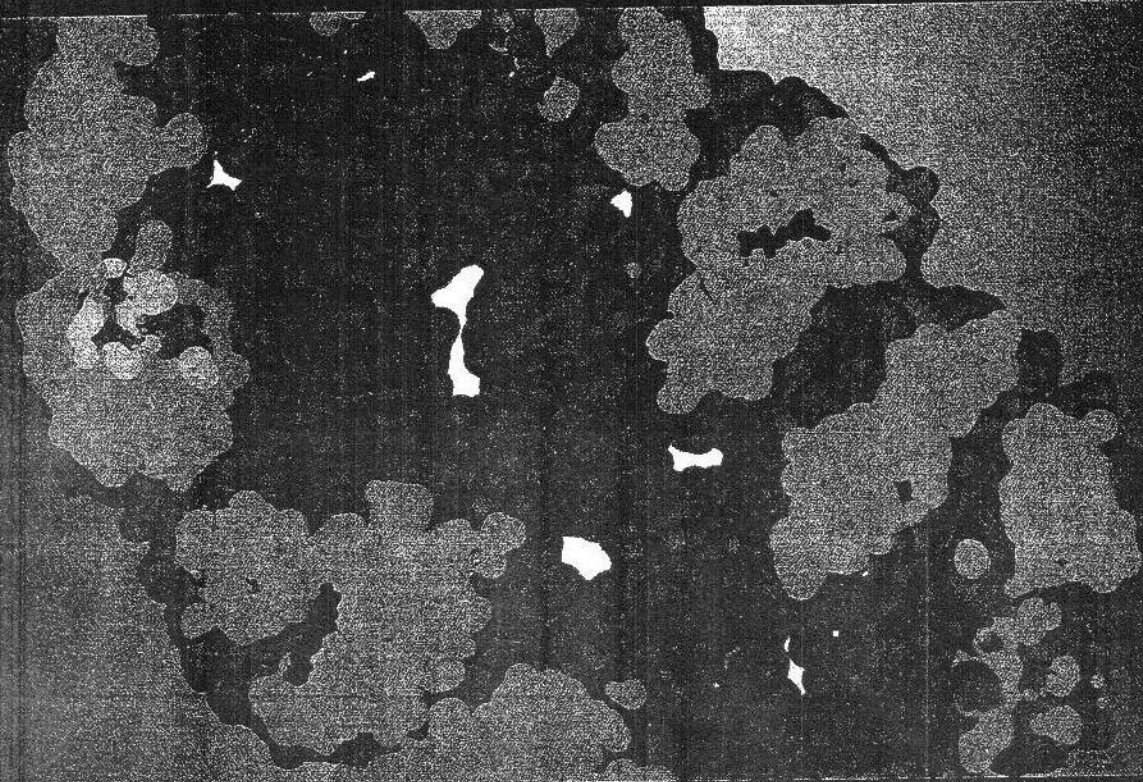


Program




Biophysical Society

55th Annual Meeting
March 5–9, 2011
Baltimore, Maryland



1532-Pos BOARD #B442
PATCH-CLAMP CHARACTERIZATION OF THE MSCS-LIKE MECHANOSENSITIVE CHANNEL FROM *SILICOBACTER POMEROYI*. **Evgeny Petrov**, Dinesh Palanivelu, Paul R. Rohde, Maryrose Constantine, Dan Minor, Boris Martinac.

1533-Pos BOARD #B443
CYTOPLASMIC DOMAIN FILTER FUNCTION IN THE MECHANOSENSITIVE CHANNEL OF SMALL CONDUCTANCE. **Ramya Gamini**, Marcos Sotomayor, Christophe Chipot, Klaus Schulten.

Voltage-gated K Channels—Gating I (Boards #B444–#B467)

1534-Pos BOARD #B444
STRUCTURAL DYNAMICS OF THE S4 VOLTAGE SENSOR HELIX IN BILAYERS LACKING LIPID PHOSPHATES. **Magnus Andersson**, Alfredo J. Freitas, Stephen H. White, Douglas J. Tobias.

1535-Pos BOARD #B445
A POTASSIUM CHANNEL VOLTAGE-SENSING DOMAIN IN A NON-PHOSPHOLIPID BILAYER. Harindar S. Keer, **J. Alfredo Freitas**, Stephen H. White, Douglas J. Tobias.

1536-Pos BOARD #B446
CONFORMATIONAL CHANGES IN LIPID RECONSTITUTED POTASSIUM CHANNEL VOLTAGE-SENSING DOMAINS. **Dmitriy Krepliy**, Sonya Hanson, Klaus Gawrisch, Kenton J. Swartz.

1537-Pos BOARD #B447
PHOSPHOLIPIDS AS A STRUCTURAL AND FUNCTIONAL DETERMINANT FOR VOLTAGE SENSORS IN A KV CHANNEL. Liang Shi, Hui Zheng, Weiran Liu, Lingyan Anderson, **Qiu-Xing Jiang**.

1538-Pos BOARD #B448
MOLECULAR DYNAMICS STUDY OF STRUCTURAL ELEMENTS RELEVANT TO GATING OF KV CHANNELS. **Greg Starek**, Simon Bernèche.

1539-Pos BOARD #B449
BARIUM BLOCK OF KV4.2 IS ENHANCED BY CHANNEL INACTIVATION. **Steven J. Kehl**, Yen May Cheng.

1540-Pos BOARD #B450
CLOSED-STATE INACTIVATION OF A VOLTAGE-GATED POTASSIUM CHANNEL INVOLVES INTER-SUBUNIT INTERACTIONS. Jessica Wollberg, **Robert Bähring**.

1541-Pos BOARD #B451
DIVERSITY IN INTERACTION AND GATING MODIFICATION OF KV4 CHANNELS BY HPTX2. Christopher V. Desimone, Stephanie C. Santoro, Chang Xie, Edward C. Hoefler, Pooja Makhija, Vladimir E. Bondarenko, **Michael J. Morales**.

1542-Pos BOARD #B452
IDENTIFICATION OF A K_v4 CHANNEL HYDROPHOBIC BINDING POCKET FOR THE INHIBITORY EFFECTS OF OLYNSATURATED FATTY ACIDS. Robert Heler, Jessica A. Bell, **Linda M. Boland**.

1543-Pos BOARD #B453
PROTEIN KINASE C INFLUENCE ON KV4.3 CLOSED STATE INACTIVATION. **Chang Xie**, Stephanie C. Santoro, Harold C. Strauss, Michael J. Morales.

1544-Pos BOARD #B454
CHRONIC PKC ACTIVATION INHIBITS THE REPOLARIZING CARDIAC CURRENT BY DECREASING THE FUNCTIONAL ION CHANNEL EXPRESSION AT THE PLASMA MEMBRANE. **Kaleef Williams**, Jin O-Uchi, Angelica Martinez Perez, Coeli M.B. Lopes.

1545-Pos BOARD #B455
HYDROGEN PEROXIDE INCREASES K_v CURRENTS BY ALTERING INTRACELLULAR GLUTATHIONE REDOX STATUS IN RAT MESENTERIC ARTERIAL SMOOTH MUSCLE CELL. **Sang Woong Park**, Dong Jun Sung, Jeong Min Kim, Hyun Ju Noh, Jae Gon Kim, Bokyoung Kim, Young Min Bae, Sung Il Cho.

1546-Pos BOARD #B456
PHOSPHORYLATION REGULATES GATING AND CHANNEL-PROTEIN INTERACTION IN THE SLACK KNA CHANNEL. **Matthew R. Fleming**, Leonard K. Kaczmarek.

1547-Pos BOARD #B457
A NOVEL VOLTAGE GATED PROTON CHANNEL IN A⁺ DINOFLAGELLATE. **Susan ME Smith**, Deri Morgan, Boris Musset, Vladimir V. Cherny, Allen R. Place, J Woodland Hastings, Thomas E. DeCoursey.

1548-Pos BOARD #B458
THE CONFORMATIONAL TRANSITION OF KV1.2 VOLTAGE SENSOR DOMAIN FROM MOLECULAR DYNAMICS SIMULATIONS. **Luca Maragliano**, Fatemeh Khalili-Araghi, Emad Tajkhorshid, Klaus Schulten, Benoit Roux.

1549-Pos BOARD #B459
GATE CLOSURE IN KV1.5 CHANNELS IS NOT DEPENDENT ON THE STATUS OF THE SELECTIVITY-FILTER. **Alain J. Labro**, Alessandro Grottesi, Dirk J. Snyders.

1550-Pos BOARD #B460 INTERNATIONAL TRAVEL AWARD
GENETIC ALGORITHM BASED COMPUTER SIMULATION REVEALS A NEW PROPERTY OF KV1.3 INACTIVATION. **Janos Vincze**, Zoltan Varga, Laszlo Csernoch, Gyorgy Panyi.

1551-Pos BOARD #B461
MOLECULAR REARRANGEMENTS DURING SLOW INACTIVATION OF THE SHAKER-IR POTASSIUM CHANNEL. **Tibor Szanto**, Ferenc Papp, Florina Zakany, T Pian, C Gajewski, Carol Deutsch, Gyorgy Panyi.

1552-Pos BOARD #B462
SHAKERIR AND KV1.5 MUTANT CHANNELS WITH ENHANCED SLOW INACTIVATION ALSO EXHIBIT [K⁺]O-DEPENDENT RESTING INACTIVATION. **Yen May Cheng**, Steven J. Kehl.

1553-Pos BOARD #B463
VOLTAGE SENSOR IMMOBILIZATION IN KV1.2 CHANNELS. **Samuel Goodchild**, Hongjian Xu, Christopher Ahern, David Fedida.

1554-Pos BOARD #B464
ALTERING THE LENGTH AND CHARACTER OF S3-S4 LOOPS CHANGES EQUILIBRIUM AND KINETIC PROPERTIES OF KV1.2 AS REVEALED THROUGH MUTAGENESIS AND MOLECULAR DYNAMICS SIMULATIONS. **Rheanna Sand**, Nazlee Sharmin, Warren J. Gallin.

1555-Pos BOARD #B465
ANALYSIS OF THE CONTRIBUTION OF DOMAIN SWAPPING INTERACTIONS TO SHAKER KV CHANNEL GATING REVEALS A DYNAMIC UPPER VOLTAGE-SENSOR PORE DOMAIN INTERACTION SURFACE. Tzilhav Shem-Ad, **Ofer Yifrach**.

1556-Pos BOARD #B466
R1 IN THE SHAKER S4 OCCUPIES THE GATING CHARGE TRANSFER CENTER IN THE RESTING STATE. Meng-chin A. Lin, Jui-Yi Hsieh, Allan F. Mock, **Diane M. Papazian**.

1557-Pos BOARD #B467
MOLECULAR DETERMINANTS OF KV2.1 CHANNEL U-TYPE INACTIVATION. John Azer, Christine Niven, Pouya Mafi, Charlene Allard, **Tom Claydon**.

Muscle Regulation II (Boards #B468–#B477)

1558-Pos BOARD #B468
THE INTERPLAY OF CHROMATIN AND TRANSCRIPTION FACTORS IN THE REGULATION OF MUSCLE DIFFERENTIATION. **Wenjing Yang**, Kambiz Mousavi, Hossein Zare, Vittorio Sartorelli, Weiqun Peng.

1559-Pos BOARD #B469
FOXO1 NUCLEAR-CYTOPLASMIC MOVEMENT IN LIVE SKELETAL MUSCLE FIBER. **Tova Neustadt Schachter**, Martin F. Schneider.

1560-Pos BOARD #B470
DYNAMIC SKELETAL MUSCLE EXERCISE AND FATIGUE DEVELOPMENT IN POST INFARCTION HEART FAILURE RATS AND EFFECT OF WARM-UP. Kristin H. Hortemo, Ole M. Sejersted, **Per K. Lunde**.