XICS conference accomplishments: September 9-13, 2012.

Today's date: October 23, 2012. Daniel T. O'Connor, MD, UCSD.

SUMMARY: The XICS brought together over 300 basic, disease-oriented, and patient-oriented researchers to present and discuss advances in understanding of catecholamine-related disorders. Catecholamines are well known to play crucial roles in a wide variety of conditions that impact public health, including drug and alcohol abuse and neurologic, psychiatric, cardiovascular, and endocrine disorders. Since catecholamine research formats span from subcellular fractions to cells and neurons to animal models and patients, research on this small chemical family is truly translational. The general field of catecholamine research had not undergone comprehensive review for 10 years. During this interval, a tremendous amount of new information has accrued about the important involvement of catecholamine systems in a host of topics of direct interest to multiple Institutes of the NIH, such as NIDA, NINDS, and NIDDK. The XICS will emphasize integration of basic science with clinical pathophysiology, by a program centering on disease-oriented research about catecholamine systems. The ten carefully selected Themes of the XICS were synthesis and storage, release and reuptake, metabolism, receptors, neurology, psychiatry and psychology, drug abuse, peripheral catecholamine systems, integrative medicine, and interactions with other transmitters. Participants in the XICS included an international, diverse mixture of senior and junior scientists, pre- and post-doctoral trainees, minorities and students, and patients with catecholamine-related disorders. A specific minority action program was in place. We pursued five Specific Aims in order to implement our goals in the practical setting of the meeting.

PROJECT NARRATIVE.

Members of the catecholamine chemical family—dopamine, norepinephrine, and adrenaline—play many key roles in normal physiology, drug effects, stress, and a variety of important neurological, cardiovascular, psychiatric, and endocrine disorders. The overall goal of the XICS is to provide a comprehensive update of advances in understanding of catecholamine biosynthesis, trafficking, storage, release, metabolism, actions, and involvement in the pathophysiology, pathogenesis, diagnosis, treatment, and prevention of catecholamine-related disorders, such as Parkinson disease, drug addiction, and diabetes. The XICS will continue a remarkably successful series that began at the NIH in Bethesda about a half century ago.

Mission, Priorities, Guidelines. The Tenth International Catecholamine Symposium (XICS) emphasized integration of basic science with clinical pathophysiology, by a program that centered on disease-oriented research about catecholamine systems.

- Catecholamine systems and translational research: bedside-to-bench-to-bedside.
- Foster interactions among clinical investigators, disease-oriented researchers, and basic scientists.
- New concepts and "hot topics" take precedence over comprehensive reviews.
- Exploit internet communication to maximize participation.
- Publish proceedings. Session organizers introduced each Theme, including historical perspective, explanations of the larger significance of the work presented, and future prospects. About 200 mini-chapters are anticipated, based on invited oral presentations and meritorious posters.

Event location. XICS was sponsored by the Catecholamine Society http://www.catecholamineclub.org/ and the University of California at San Diego, and was held in late summer (September 9-13, 2012) in a seaside retreat (the Asilomar Conference Center http://www.visitasilomar.com/) in the Monterey Bay area of California; this isolated setting fostered person-to-person dialog and begin new collaborations between investigators, as well as between investigators and industry, a long-time goal of Catecholamine Society.

Format: The meeting was designed to update catecholamine-centered investigators across a broad range of disciplines: neurochemistry, neurology, psychiatry, addiction biology, endocrinology, and cardiovascular disease. In past ICS meetings, the number of attendees has ranged up to 600 attendees. For XICS in 2012, we hosted >300 attendees, including invited speakers and other registrants.

Overall: Three days of main meeting, 10 Themes and 2 integrated satellites (laboratory techniques and therapeutics). Moderate meeting size (~300), to maximize scientific interchange and collegiality. Concurrent thematic sessions. "Hot topic" inter-disciplinary plenary sessions. Daily: Morning plenary, oral Theme presentation sessions, PM poster session, 2 evenings of scientific seminar sessions. Wine & cheese with poster session & poster discussion before dinner. Posters for all oral presentations. Welcoming and closing reception and dinner. Gala evening/banquet at Monterey Bay Aquarium.

Themes: XICS were organized to cover 10 Themes and 2 integrated satellites (evening seminar sessions). The following are the Themes and confirmed Theme Chairs/Co-Chairs:

- A. Catecholamine Synthesis & Storage (Eberhard Weihe, Germany)
- B. Catecholamine Release & Reuptake (Susan Amara/Gonzalo Torres, U-Pittsburgh)
- C. Catecholamine Metabolism (Graeme Eisenhofer, Germany)
- D. Catecholamine Receptors & Signal Transduction (Marc Caron, Duke)
- E. Catecholamines and Neurological Disorders (Marie-Francoise Chesselet, UCLA)
- F. Catecholamines in Psychiatry & Psychology (Anissa Abi-Dargham, Columbia)
- G. Catecholamines & Drug Addiction (Antonello Bonci, NIDA)
- H. Peripheral catecholamine systems (David Robertson, Vanderbilt).
- I. Catecholamines & Integrative Medicine (George Chrousos, Athens).
- J. Interactions of Catecholamines with Other Transmitters (Zofia Zukowska, Univ. Minnesota).
- Sat. I: Catecholamine-related therapeutics (David Goldstein, NINDS).
- Sat. II: Techniques of Catecholamine-related Research (Courtney Holmes, NINDS)

Topics and Sub-topics within each Theme were decided on by the Theme Committee and Organizing Committee. Topics pursued for each Theme were as follows:

- A. Catecholamine Synthesis & Storage (TH, DBH, VMAT)
- B. Catecholamine Release & Reuptake (Exocytosis, NET, DAT, chromogranins & catestatin)
- C. Catecholamine Metabolism (MAO, COMT, ALDH, auto-oxidation)
- D. Catecholamine Receptors & Signal Transduction (DARs, alpha-adrenoceptors, beta-adrenoceptors)
- E. Catecholamines and Neurological Disorders (Chronic Autonomic Failure, Parkinson disease, Synuclein)
- F. Catecholamines in Psychiatry & Psychology (Schizophrenia, DA in Learning & Reward, CNS NE, Depression, Food Ingestion)
- G. Catecholamines & Drug Addiction (Cocaine, Amphetamines, DA & Addiction)
- H. Peripheral Catecholamine Systems (Catecholamines in cardiovascular diseases, chronic autonomic failure, SNS, adrenomedullary system, catecholamines and cancer, catecholamines & metabolism)
- I. Catecholamines & Integrative Medicine (Stress, pain, neuroimmunology, PTSD)
- J. Interactions of Catecholamines with Other Transmitters (Serotonin, acetylcholine, NPY, purines)

SPECIFIC AIMS ACCOMPLISHED.

- (1) We gathered an internationally recognized group of investigators and other stakeholders in catecholamine research, to update the field and foster innovation and more rapid progress in this important discipline, which is a focal point for advances in understanding of drug abuse and neurological, cardiovascular, and endocrinologic disorders. New information was communicated by on-site oral and poster presentations, and uploads of presentations to the Symposium-specific website.
- (2) We promoted multidisciplinary studies in catecholamine biology, bridging such diverse disciplines as cell biology, genetics, neurochemistry, neuropharmacology, and clinical medicine.
- (3) We promoted introduction of new technologies into catecholamine research and clinical practice, such as genomics, bioinformatics, optical and other types of imaging, clinical neurochemistry, and gene delivery/therapy.
- (4) We fostered participation not only of long-time catecholamine investigators, but also new investigators from allied disciplines.
- (5) We ensured participation of younger investigators (including Assistant Professors, postdoctoral fellows, and graduate students), previously under-represented investigators (by virtue of minority status), women, and patients, caretakers, and support groups.

Last Name	First Name	Country	Email	Award Funding Source	Award Amount	Registration Fee Source	Registration Fee
Last Name	First Name	Country	chunls@ninds.ni	Source	Amount	ree Source	ree
Chun	Lani	USA	h.gov	ISN	\$1,000	ISN	\$550
			powelljd@niehs.n				
de Marchena	Jacqueline	USA	ih.gov	ISN	\$1,000	ISN	\$550
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Emery	Andrew	USA	ih.gov	ISN	\$1,000	ISN	\$550
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Mustafa	Tomris	USA	nih.gov	ISN	\$1,000	ISN	\$550
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Baumann	Anne	Norway	biomed.uib.no	ISN	\$1,500	Other	\$0
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Cameron	Krasnodara	USA	<u>u.edu</u>	ISN	\$1,000	Other	\$0
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Conroy	Jennie	USA	<u>h.gov</u>	ISN	\$1,000	ISN	\$550
			jonesgn@mail.ni				
Jones	Georgette	USA	h.gov	ISN	\$1,000	ISN	\$550
TOTAL					\$8,500		\$3,300

^{*}The remaining \$1200.00 was spent on audio visual equipment for the conference which totaled \$38,000.00 total.

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(Please use the address that the bank hold against the account to be credited i.e. the statement address or address that the draft is to be sent to)	
Email address	thrim@parthenonmanagementgroup.com
Title of conference or ISN Symposium	Tenth International Catecholamine Symposium (XICS)
Date of conference or main meeting	September 9-13, 2012

Currency	USD
	030

Type of Support Grant	Value
Support for Small Conferences on Specialized Neuochemical Topics	
Support for an ISN Symposium within Meetings of other Scientific Societies or Groups	13,000.00
Please complete the awarded value in the box relevent to the grant	
Payment details	Value
80% of amount granted before the meeting	10,400.00
Residual 20% to be transferred upon receipt and approval of the meeting report	2,600.00
	13,000.00

dditional notes regarding the	application of paying	ao applicable	 	
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Total awarded amount	13,000.00

Payment details	
All claimants:	
Account name	Catecholamine Society, Inc.
Account number	1000141894567
Bank name	SunTrust
UK Banks:	
Sort code	
Non UK Banks:	
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SWIFT/BIC Code	#SNTRUS3A

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