

**Spring Undergraduate Research Symposium**  
**Oral Presentations: 1:30 - 3 p.m.**  
**Honors College Commons Area**

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**1:30 p.m. - Michael Carrell**

Faculty Mentor: Dr. Lindita Camaj

Communication

*U.S. Media Coverage of the Humanitarian Crisis in Tibet*

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**1:45 p.m. - Jonathan Sanford**

Faculty Mentor: Dr. Robert Cremins

Honors College, Creative Writing

*Hands of the Survivors*

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**2:00 p.m. - Thomas Shide**

Faculty Mentor: Dr. Sally Vaughn

History

*Richard Lionheart Takes the Cross*

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**2:15 p.m. - Kelsea Tennyson**

Faculty Mentor: Dr. James Martin

History

*Childhood Development Applied to George Washington and George III*

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**2:30 p.m. - Veronica Lizaola**

Faculty Mentor: Dr. Sandra Zalman

Art History

*The Art of Spectatorship: Thomas Struth's Museum Photographs*

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**2:45 p.m. - Alex Grandstaff**

Faculty Mentor: Dr. John Harvey

Honors College, Creative Writing

*Evolutions*

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UNIVERSITY OF  
**HOUSTON**

# Spring Undergraduate Research Symposium

Thursday, April 12, 2012

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Poster Presentations

4:00 p.m.

Elizabeth D. Rockwell Pavilion

Oral Presentations

1:30 p.m.

Honors College Commons

2nd floor, M.D. Anderson Library

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*A very special thank you to the Provost's Office,  
the Division of Research, The Honors College, and the Office of  
Undergraduate Discovery Programs for their generous support of the  
Office of Undergraduate Research.*

1	Meredith Chavez	William Truitt	Architecture	Mekong Delta Rapid Urbanization
2	Alejandro Lara	Matthew Johnson	Architecture	Wasted Landscapes
3	Andre Simapranata	Matthew Johnson	Architecture	Infrastructure Intervention of the New Orleans Wetlands
4	Rose Lee	Thomas Colbert	Architecture	Coastal Resilience Study on West Shore Galveston Bay
5	Ian Spencer	Thomas Colbert	Architecture	Coastal Resilience and Sustainability: Preserving and Protecting Land Values in the Houston-Galveston Coastal Region
6	Deepa Sabu	Long Le	Management/Global Stud	Micro-financing in Malaysia
7	LaKrystal Williams	Sharon Marquart	World Cultures & Lit	Becoming Woman: Gender Identity in Tahar Ben Jelloun's <i>The Sand Child</i> and <i>The Sacred Night</i>
8	Joshua Puey	Irving Rothman	English	Rhetorical Tropes of Exits and Resolutions in 18th Century and Reformation Drama
9	Manar Hindi	Ryan Kennedy	Political Science	Lebanese Political Parties: Demographics and their Implications
10	Krystafer Redden	Jeffrey Church	Political Science	Towards a National Common Culture?   Matthew Arnold's Educational & Political Thought
11	Stephanie Ruiz	Ling Zhu	Political Science	Administrative Leadership and Organizational Stability
12	Joan Marianne Sotelo	Julia Babcock	Psychology	BIS/BAS Variables as Moderators of the Link between Rumination and Intimate Partner Violence
13	Hannah Parham	Hanako Yoshida	Psychology	Novel Word Learning in Children and Adults: Implications for Bilingualism
14	Ryan Roy	Hanako Yoshida	Psychology	Memory Guided Attention: Infants' Implicit Learning in an Object Search Task
15	Alicia San Miguel	Hanako Yoshida	Psychology	The Role of Working Memory in Conservation Task Performances
16	Nicole Richardson	Zhiwen Xiao	Communication	The Relationship between Health Literacy and Migraines
17	Jesika Orellana	Tracey Ledoux	HHP	TV, Eating Behaviors, and Weight Status
18	Nadia Agha	Brian McFarlin	HHP	Vitamin D Status in Mexican-American Children of Differing Obesity Status
19	Jaime Carrillo	Donald Fox	Biology & Biochem	Coord Upregulation Retinal Cell Cycle Progression & Exit Increased Late-Born Neurogenesis During Gestational Lead Exposure
20	Anthony Hoang	Sang-Hyuk Chung	Biology & Biochem	Determination of Genotype of Transgenic Mice
21	Thuyvan Vanessa Hoang	Timothy Cooper	Biology & Biochem	Examining Gene Interactions to Understand the Evolutionary Process of Escherichia coli
22	Julia Talley	Amy Sater	Biology & Biochem	Effects of miR-26 on Dorsal-Ventral Patterning of Xenopus laevis
23	Dasha Tikhomirova	Robert Schwartz	Biology & Biochem	Conversion of Fibroblasts into Cardiac Progenitors
24	Peter Tran	Daniel Frigo	Biology & Biochem	Development of CaMKKB Splice Variant Expression Constructs
25	Tangen Tran	James Briggs	Biology & Biochem	pKa and Electrostatic Analysis of ROCK1 Catalytic Domain
26	Ronald Besandre	Jeremy May	Chemistry	Cu(I)-Catalyzed Indole Synthesis from 2-Bromophenyl Ketones
27	Mathieu Bosch	Angela Möller	Chemistry	Synthesis and Characterization of Cu <sub>5</sub> V <sub>2</sub> O <sub>10</sub> -CuC <sub>12</sub>
28	Nghia Bui	Ognjen Miljanić	Chemistry	Reversible Formation of Boroxine Rings Under Dynamic Conditions
29	Jennifer Campo	Jonathan Snow	Earth & Atmos Sci	Petrogenesis of Abyssal Peridotites from the Lena Trough
30	Rebecca Neill	Jonathan Snow	Earth & Atmos Sci	Does Water Play a Role in Continental Breakup?
31	Melissa Davidson	John Casey	Earth & Atmos Sci	U/Pb Geochronology of Volcanic Rocks Indio Mountains Research Station, Southwest TX: Evidence of Laramide Volcanism
32	Alicia Staszyc	Thomas Lapen	Earth & Atmos Sci	U/Pb Dating of Zircons from the Tesnus Formation, Marathon Uplift, Texas
33	James Trammell	Xun Jiang	Earth & Atmos Sci	Variability and Trend of Precipitation over Texas
34	Sarah Stanley	William Ott	Mathematics	Stochastic Delay and Signal Propagation in Gene Regulatory Networks
35	Kieran Boochoon	William Foster	Physics	The Influence of Substrate Elastic Modulus on Retinal Pigment Epithelial Cell Phagocytosis
36	Sana Mateen	Margaret Cheung	Physics	Density of Water on Molecular Triad Under Confinement
37	Cameron Williams	D. Kouri/ B. Bodmann	Physics/Mathematics	Beyond Fourier: A New Look at the Harmonic Analysis of Functions
38	Minh Di Le	Bradley McConnell	Pharmacy	Role of Gravin (AKAP12) in Vascular Smooth Muscle Cells during Atherosclerosis
39	Kim Ngo	Jason Eriksen	Pharmacy	The Effects of Progranulin Loss on Alzheimer's Mouse Model Through Aging
40	Eddie Dinh	Ke-He Ruan	Pharmacy	Dev High Performance Mutagenesis Approach for Identification of Key Residues of a Subtype Prostaglandin E2 Receptor
41	Quynh-Anh Bui	Ke-He Ruan	Pharmacy	Iden of the G-protein Binding Site on Intracellular Domain of Human Thromboxane Receptor Interacted with Gαq
42	Tien Hoang	Ke-He Ruan	Pharmacy	Identifying the Key Residues on Human Thromboxane A2 Receptor which Mediates Stroke and Heart Disease
43	Thien Nguyen	Ke-He Ruan	Pharmacy	Detection of PGI2 Production in Endothelial-Like Progenitor Cell-Based Prostacyclin Gene Therapy by HPLC-MS
44	Tuan Nguyen	Ke-He Ruan	Pharmacy	Detection of PGI2 Production in Endothelial-Like Progenitor Cell-Based Prostacyclin Gene Therapy by HPLC-MS
45	Dmitry Galushko	Peter Vekilov	Chem & Biomol Engr	Light Scattering Methods to Study Protein Aggregation
46	Adeline Mah	Gila Stein	Chem & Biomol Engr	Biosensors Platform Based on Micropatterning of Protein Functionalized Magnetic Beads on Glass Substrate
47	Hayley Redweik	Shankar Chellam	Civil & Environ Engr	Treatability of Blowdown from Oil Sands Produced Water For Deep Well Injection
48	Elizabeth Heeb	Jerry Rogers	Civil & Environ Engr	Low Impact Development & Engineered Soils
49	Nicholas Leschke	Craig Glennie	Civil & Environ Engr	Terrestrial Laser Scanner Tie Points
50	Gustavo Azevedo	Wei-Chuan Shih	Electr & Comp Engr	Automated Detection of Oil Spills Using Infrared Optical Remote Sensing Adapted to an Unmanned Aerial Vehicle
51	Cesar Figueroa	Wei-Chuan Shih	Electr & Comp Engr	Ultraflexible Neural Probe for Deep Brain Stimulation and Recording Device Physics and Circuit Modeling
52	Curtis Belknap	Len Trombetta	Electr & Comp Engr	Optimization of RF Heating Experiment
53	Rebecca Habib	Diana de la Rosa Pohl	Industrial Engr	The Effect of Project-Based Learning in Freshman Engineering Courses
54	John Alred	Pradeep Sharma	Mechanical Engr	Induced Magnetic Properties in Graphene
55	Pratima Anumolu	Ralph Metcalfe	Biomedical Engr	Computer Simulation of Drug-Eluting Stents
56	Floredes Menodiado	Kirill Larin	Biomedical Engr	Shear Wave Velocity Propagation Phantoms & Tissues Using Phase-Sensitive Swept Source Opt Coherence Elastography
57	Phiet Truong	Kirill Larin	Biomedical Engr	Estimation of Surface Wave (SW) Velocity with Phase Stabilized Swept Source Optical Coherence Elastography
58	Darren Seibert	George Zouridakis	Biomedical Engr	Predicting Human Brain Activity in Response to Natural Objects
59	Mark Wierzbicki	John Eberth	Engineering Tech	Emboli Detection During CAS Surgery

#### TECHNOLOGY TEAM PROJECTS:

59	Team 4: Osagie Iyamu, Mujtuba Khan, Maria Del Carmen Ramos, Michael Roebuck	Farrokh Attarzadeh	Engineering Tech	Brain Computer Interface Controlled Wheelchair
60	Team 7: Johana Escalante, Reina Escalante, Son Trong Ho, Furqan Ahmad Mirza	Farrokh Attarzadeh	Engineering Tech	Wireless Health Monitor Device
61	Team 9: Paul Maicah, Claudia Martinez, Andrew Tran, Victor Valenzuela	Farrokh Attarzadeh	Engineering Tech	SKYSight
62	Team 11: Eric Michael Coffy, Thuan Nguyen, Ashley Rena Riser, Andre Williams	Farrokh Attarzadeh	Engineering Tech	Duress Security Scanner