

**List of Posters**  
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1	Jacob Al-Saleem	27	Aiswarya Krishnamohan
2	Mike Allen	28	Nicholas Long
3	Katie Anderson	29	Justin Mabin
4	Jenna Antonucci	30	Ashanti Matlock
5	Divyaa Bhagdikar	31	Pearson Maugeri
6	Ioana Boeras	32	Andrea McCue
7	Nathanael Braun	33	Orlando McEwan
8	Aaron Bruns	34	Adil Moghal
9	Kunal Chatterjee	35	Chandrama Mukherjee
10	Vivek Chowdhary	36	Krishna Patel
11	Daniel Comiskey	37	Andrei Rajkovic
12	Tami Coursey	38	Brent Simpson
13	Eric Danhart	39	Anna Smith
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15	Catey Dominguez	41	Brittany Suggs
16	Alice Duchon	42	Meng Sun
17	Sarah Fritz	43	Joy-El Talbot
18	Dalen Fultz	44	Kiel Tietz
19	Tom Gallagher	45	Yao Wan
20	Anna H. N. Griffis	46	Feifei Wang
21	Samuel Handelman	47	Allison Webb
22	Pepsi Holmquist	48	Xin Xia
23	Bradley Howard	49	Lanqing Ying
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25	Daniel Kiss	51	Hongkun Zhu
26	Kiel Kreuzer		

1) The Role of Tax-1 and the Alternative NF- $\kappa$ B and Akt Signaling Pathways in HTLV Transformation  
**Jacob Al-Saleem**

2) Thinking outside the box: an investigation of an unusual S box family member  
**George M. Allen**

3) An adenosine deaminase and methyltransferase act co-dependently to edit and modify tRNA in *Trypanosoma brucei*.  
**Katherine M. Anderson**

4) The Effect of SAMHD1 on HIV-1 Gag Protein Synthesis and Virion Release  
**J. Antonucci**

5) Identification and characterization of S-box riboswitches predicted to regulate at the level of translation initiation  
**Divyaa Bhagdikar**

6) Distinctions in HIV-1 RNA structure and host components between the Translation RNP and the Packaging RNP  
**Ioana Boeras**

7) Germline-restricted repression of CycB mRNA in *Drosophila* embryos  
**Nathanael P. Braun**

**8) SnRK1 Phosphorylates eIF4E/eIFiso4E to Regulate Translation**

**Aaron Bruns**

**9) Identification of novel proteins involved in nuclear export of pre-tRNAs in *Saccharomyces cerevisiae***

**Kunal Chatterjee**

**10) Role of MicroRNA-122 in Drug Induced Liver Injury**

**Vivek Chowdhary**

**11) Splicing Factor SRSF2 Positively Regulates the Alternative Splicing of MDM2**

**Daniel F. Comiskey Jr.**

**12) Putative histone readers EML1 and EML3 regulate geminivirus infection**

**Tami Coursey**

**13) Determinants of specific recognition of mischarged Ala-tRNA<sup>Pro</sup> by a bacterial trans-editing domain**

**Eric M. Danhart**

**14) bPNA's as fluorescent reporters of RNA loop-loop interactions.**

**Christopher DeSantis**

**15) Heat shock response alters SMN alternative splicing**

**Catey Dominguez**

**16) Examination of Human Lysyl-tRNA Synthetase/tRNA<sup>Lys</sup> Primer Recruitment and Packaging into HIV-1**

**Alice Duchon**

**17) The DExH-box helices RHA/DHX9 selectively regulates pathogenic retroviral gene translation by a novel cap-dependent mechanism.**

**Sarah Fritz**

**18) Homology recognition and expression dependent methylation of an exogenous transposable element**

**Dalen Fultz**

**19) Pnrc2 targets oscillating transcripts for rapid degradation via 3' UTR recognition**

**Thomas L. Gallagher**

**20) Dissecting the requirement of Arabidopsis RanGAP1 subcellular targeting and GAP activity for its cellular and developmental functions**

**Anna H. N. Griffis**

**21) Building a consensus co-expression network for CNS genes relevant to pharmacogenomics**

**Samuel K. Handelman**

**22) Investigating the disassembly pathway of the Anti-TRAP dodecameric complex by surface induced dissociation mass spectrometry (SID-MS).**

**Pepsi Holmquist**

**23) Probing the physiological function of prolyl-tRNA synthetase-related trans-editing domains**

**C. Bradley Howard**

**24) Alternative RNA processing leads to decreased DNA topoisomerase II $\alpha$  in etoposide (VP-16) resistant human leukemia K562 cells**

**Ragu Kanagasabai**

**25) Cap homeostasis is independent of poly(A) tail length**

**Daniel L. Kiss**

**26) Investigating an additional tRNA binding specificity determinant of the glyQS T box riboswitch**

**Kiel D. Kreuzer**

**27) Mechanism of a multifunctional tRNA methyltransferase family.**

**Aiswarya Krishnamohan**

**28) Characterization and Selection of Biophysically Optimized Antibody Fragments for Enhanced in vivo Tumor Imaging**

**N. Emerson Long**

**29) Identification of alternate exon junction complexes in mammalian cells**

**Justin W. Mabin**

**30) Investigating the molecular basis for substrate recognition by Thg1**

**Ashanti Matlock**

**31) Using resonance raman spectroscopy to elucidate metal incorporation of R2lox, a novel heterobimetallic oxidase**

**Pearson T. Maugeri**

**32) ARGONAUTE 6 bridges the RNAi of transposable element mRNAs to the establishment of DNA methylation**

**Andrea D. McCue**

**33) Recognition of SAM by SMK box (SAM-III) in the ligand-free state**

**Orlando McEwan**

**34) PheRS editing activity limits conditional cytotoxic mistranslation of the genetic code.**

**Adil Moghal**

**35) Capping enzyme is a nucleocytoplasmic shuttling protein whose cytoplasmic pool is maintained by Nck1 binding**

**Chandrama Mukherjee**

**36) Base pair recognition by the Thg1 family 3'-5' polymerases**

**Krishna Patel**

**37) Structural identification by Mass Spectrometry of Cyclic Rhamnosylated EF-P**

**Andrei Rajkovic**

**38) Role of LptFG in LPS transport across the cell envelope of Escherichia coli.**

**Brent W. Simpson**

**39) Structural characterization of a RNA motif required for cell-to-cell trafficking**

**Anna C. Smith**

**40) Potential Role for RNA Polymerase II in Repressive Histone Methylation**

**Jessica Storer**

**41) Uncovering the shared and distinct roles for the transcription factor gene duplicates hmg-3 and hmg-4 during *C. elegans* development**

**Brittany Suggs**

**42) Structural and Functional Characterization of Yeast Argonaute Proteins Reveals a Unique RNA-binding Activity of the Extended N-terminal Domain**

**Meng Sun**

**43) Tandem repeats are implicated in both the establishment and maintenance of paramutation at *PI1-Rhodes***

**Joy-El R B Talbot**

**44) Rapid clearance of oscillating transcripts during somitogenesis requires the decay adapter Pnrc2**

**Kiel T. Tietz**

**45) Studies of proteins required for proper function and localization of tRNA splicing endonuclease in *Saccharomyces cerevisiae***

**Yao Wan**

**46) The effect of phosphorylation of mouse SAMHD1 on restriction of HIV-1 and murine leukemia virus infection**

**Feifei Wang**

**47) EGL-38/PAX functions in communicating cells of the *Caenorhabditis elegans* egg-laying system to coordinate signaling and differentiation**

**Allison Webb**

**48) Tuning RNA Structure and Function Through Bifacial Nucleic Acid (bPNA)**

**Xin Xia**

**49) Analysis of allostery within the 30S ribosomal subunit**

**Lanqing Ying**

**50) Discrete polyacrylate hybridization with DNA and RNA**

**Zhun Zhou**

**51) Tobramycin derivatives with enhanced ribosome-targeting activity**

**Hongkun Zhu**