THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Graduate Biomedical Sciences

GRADUATE BIOMEDICAL STUDENT OUTREACH

1st Year Student Poster Session | 10:30-11:30am

#	First Name	Last Name	Theme/Program	Title
1	Will	Dean	Biochemistry, Structural, and Stem Cell Biology	Cadherin Order Revealed in Desmosomes Using Fluorescence Polarization Microscopy
2	Elex	Harris	Biochemistry, Structural, and Stem Cell Biology	SNSP113 (PAAG) Improves Mucociliary Clearance and Mucus Obstruction in the B-ENAC Murine Model of CF Lung Disease
3	Ruthie	Jacobs	Biochemistry, Structural, and Stem Cell Biology	Investigation of the divergent enzymatic properties of RNA polymerases I, II, and III under a unified in vitro transcription system
4	Sawanan	Saitornuang	Biochemistry, Structural, and Stem Cell Biology	The C-type Lectin Receptor CLEC1a/MelLec is expressed by human neutrophils and binds to DHN-melanin on the cell wall of pigmented hyphae
5	Maredith	Sapp	Biochemistry, Structural, and Stem Cell Biology	Structural basis for RIG-I antagonism by the influenza NS1 protein during viral infection
6	Shia	Vang	Biochemistry, Structural, and Stem Cell Biology	A Novel Method to Measure O-linked N-Acetylglucosamine Transferase Proteolytic Activity
7	Katherine	Ankenbauer	Cancer Biology	The glycosyltransferase ST6Gal-I confers resistance against natural killer cell mediated cytotoxicity
8	Nikita	Bhalerao	Cancer Biology	Glycosyltransferase ST6Gal-I modulates the tumor microenvironment by inducing ligands for Siglecs on the immune cells and potentially dampens the immune response during PDAC
9	Cyntanna	Hawkins	Cancer Biology	Inhibition of Acid Ceramidase by B13 as a Treatment for Glioblastoma
10	Yun	Lu	Cancer Biology	[^{18}F]-FLT PET/CT to Evaluate the Accuracy of FUCCI-IVIS Cell Cycle Sensor Method in Assessing Cancer Cell Proliferation *in Vivo*
11	Tiara	Napier	Cancer Biology	89Zr-panitumumab, a radiolabeled EGFR antibody, for imaging ameloblastomas in vivo
12	Adrienne	Samani	Cancer Biology	The Role of ST6GAL-I in Cancer Stem Cell Quiescence
13	Kelsey	Clearman	Cell, Molecular, and Developmental Biology	Elucidating novel roles of *Gdi2* in ciliary mediated signaling during embryonic development

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14	Devin	Drummer	Cell, Molecular, and Developmental Biology	Characterization of Muscle Inflammation Susceptibility: A Potential Prognostic Factor for Optimal Post-surgical Rehabilitation.
15	Molly	Easter	Cell, Molecular, and Developmental Biology	Fibroblast Growth Factor 23 in COPD Bronchial Cellular Senescence
16	Christian	Fay	Cell, Molecular, and Developmental Biology	Characterization of novel neutrophil subpopulations and evaluation of their differential antibody-dependent functions during chronic inflammation
17	Jason	Floyd	Cell, Molecular, and Developmental Biology	Gut microbiota intensifies retinal vascular defects by targeting adherens junction protein p120-catenin in angiotensin converting enzyme 2 (ACE2) deficient type 1 diabetes (T1D)
18	Amber	Jones	Cell, Molecular, and Developmental Biology	The Acid Ceramidase Inhibitor Carmofur Decreases the Growth of Neurospheres Isolated from Patient Derived Xenografts
19	Tomasz	Nawara	Cell, Molecular, and Developmental Biology	STAR – A new approach for measuring the dynamics of clathrin mediated endocytosis.
20	Peter	Allen	Genetics, Genomics, and Bioinformatics	Genome-wide DNA methylation signatures in classical monocytes from African ancestry patients with systemic sclerosis
21	Brianne	Brazell	Genetics, Genomics, and Bioinformatics	Evaluation of Noncoding Variants in Alzheimer's Disease and Frontotemporal Dementia
22	Mary	Bunten	Genetics, Genomics, and Bioinformatics	Phenotyping IgA Nephropathy by protein and proteomic analysis of circulating immune complexes
23	Blake	Frey	Genetics, Genomics, and Bioinformatics	Agonism of 4-1BB promotes T regulatory cell expansion and Il-10 production in CD4 T cells.
24	Nicole	Gallups	Genetics, Genomics, and Bioinformatics	T cells are required for alpha-synuclein-induced myeloid activation and demyelination in a mouse model of multiple system atrophy
25	Fengyuan	Huang	Genetics, Genomics, and Bioinformatics	De novo assembly of mycoplasmas
26	Lisa	Shrestha	Genetics, Genomics, and Bioinformatics	Comparison and Analysis of Machine Learning based predictors of circular RNAs (circRNA)
27	Kari	Thrasher	Genetics, Genomics, and Bioinformatics	Identification of Amino Acids Incorporated Upon Suppression of CFTR Nonsense Mutations
28	Abdulaziz	Almutairi	Immunology	The Impact of Macrophage iPLA2β-derived Lipids Signaling On Pancreatic Islets in Type1 Diabetes
29	Nicole	Arroyo Diaz	Immunology	Role of T-bet as a regulator of lung migratory Dendritic Cell egress from Lymph Node

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30	Trevor	Blain	Immunology	Defining The Molecular Mechanisms of T-cell Differentiation Programs
31	Jacob	Files	Immunology	Impact of predicted CD4 T-cell adaptation on vaccine-induced immune responses in HIV-1 vaccines
32	Monica	Moran	Immunology	Cytomegalovirus reverses Monocyte LPS tolerance through the down-regulation of miR-146a to enhance inducible inflammatory responses.
33	Mildred	Perez	Immunology	Exploring the CD9+ T cell population as optimized generators of exosomes
34	Andrew	Schroeder	Immunology	shRNAmir screening to identify novel Foxp1 targets in Tfh differentiation
35	Sayan	Bakshi	Microbiology	Genome-wide Methylation Array and RNA Sequencing Analysis Identify Potential Gene Targets Linking Epigenetics and Heart Failure in Diabetes
36	Josh	Baty	Microbiology	Streptococcus parasanguinis has no effect on growth of clinical Pseudomonas aeruginosa strains when grown on mucin
37	Dominik	Herrmann	Microbiology	Structural basis for Human T-cell leukemia virus 1 Gag localization to the plasma membrane
38	Gillian	Holder	Microbiology	High E2F3 expression requires DDR activation during a BK polyomavirus infection.
39	John	Sanford	Microbiology	Analyzing hsdS Variable-Number Tandem Repeats in Mycoplasma pneumoniae
40	Sara	Stoner	Microbiology	The Pseudomonas aeruginosa exopolysaccharide Psl promotes biofilm formation of oral commensal Streptococcus salivarius
41	Huixin	Wu	Microbiology	Novel basis for the impact of sulforaphane on the gut microbiome and epigenetic mediation of cancer prevention
42	Jonathan	Zhang	Microbiology	Ovarian Cancer Cells Develop in vivo Resistance to IMGN853, an antibody drug conjugate targeting Folate Receptor a
43	Nicholas	Boyle	Neuroscience	Generation of a Progranulin Deletion HEK293 Cell Line
44	Ashleigh	Irwin	Neuroscience	Manipulation of astrocytic DNA methylation in a mouse model of Alzheimer's disease
45	Shreya	Kashyap	Neuroscience	The Progranulin C-Terminal Domain and AAV-Gene Therapy for Frontotemporal Dementia
46	William	Kennedy	Neuroscience	Synaptic Plasticity in Mature and Immature Neurons of the Dentate Gyrus

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47	Adeel	Memon	Neuroscience	Analysis of hippocampal synapses in the PINK1-deficient rats.
48	Joy	Shepard	Neuroscience	Investigating B and T Cell Interactions in an Animal Model of Multiple Sclerosis.
49	Rudhab	Bahabry	Pathobiology and Molecular Medicine	Phenotypic characterization of a mouse model of Fam57b deletion, a gene in the ASD-associated 16p11.2 region.
50	Kylie	Heitman	Pathobiology and Molecular Medicine	Hyperphosphatemia contributes to inflammation and iron dysregulation in models of normal and impaired renal function
51	Alexandria	Hernandez-Nichols	Pathobiology and Molecular Medicine	Reactive species modulate N-glycosylation of surface adhesion receptors during endothelial dysfunction.
52	Natalie	Lindgren	Pathobiology and Molecular Medicine	Experimentally modeling successional changes in bacterial populations in the CF lung
53	Peyton	Vanwinkle	Pathobiology and Molecular Medicine	Characterizing the role of Jagunal homolog 1 protein in neutrophil function

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Graduate Biomedical Sciences

GRADUATE BIOMEDICAL STUDENT OUTREACH

Faculty Poster Session | 10:30-11:30am

#	Lab PI	Presenter (if different than PI)	Title	Primary Theme (& Additional Themes)
54	Marina Gorbatyuk	Priyam Pitale	Molecular Mechanism of Retinal Degenerations and Neuroprotective Strategy	**BSSB**
55	Quamarul Hassan	Benjamin Wildman	Mechanisms of miR-23a cluster function in bone formation	**BSSB** (CMDB, PBMM)
56	William Placzek			**BSSB** (Cancer Biology, PBMM)
57	Romi Gupta		Identifying epigenetic factor that confers resistance to BRAF kinase inhibitors in melanoma by activating MAP kinase pathway	**Cancer Biology**
58	Ben Larimer		Developing and Utilizing New Tools to Improve Personalized Cancer Treatment	**Cancer Biology** (PBMM)
59	X. Margaret Liu	Yingan Si	Novel targeted therapy to treat triple negative breast cancer	**Cancer Biology** (CMDB)
60	Ryan Miller		Dynamic kinome profiling of EGFRvIII-driven murine astrocyte models of glioblastoma reveals targets for dual kinase inhibitor therapy	**Cancer Biology** (CMDB, GGB, Neuroscience, PBMM)
61	Anna Sorace		Personalizing oncology treatment through imaging	**Cancer Biology**
62	Josh Stern		Telomerase Regulation in Cancer and Aging	**Cancer Biology** (BSSB, CMDB, GGB)
63	Nabiha Yusuf	Asif Sherwani	Type I interferons modulate ultraviolet radiation induced suppression of immune responses via Stimulator of Interferon Genes (STING)	**Cancer Biology** (BSSB, CMDB, GGB, Immunology, Microbiology, Neuroscience, PBMM)
64	Ron Banerjee		Prolactin Receptor Signaling Regulates a Pregnancy-Specific Transcriptional Program in Mouse Islets	**CMDB** (BSSB, GGB, PBMM)
65	Subhashini Bolisetty		Targeting ferritin in acute kidney injury	**CMDB** (BSSB)

#	Lab PI	Presenter (if different than PI)	Title	Primary Theme (& Additional Themes)
66	Jessy Deshane	Kenneth Hough	Exosomal mitochondria and T cell responses	**CMDB** (BSSB, Immunology)
67	Christian Faul	Isaac Campos	Elevations in extracellular phosphate cause cardiac hypertrophy.	**CMDB**
68	Christian Faul	Brian Czaya	FGF23 induces hepcidin expression in the liver and thereby contributes to anemia in chronic kidney disease.	**CMDB**
69	Zachary Graham		Key glycolytic metabolites in paralyzed skeletal muscle are altered 7 days after spinal cord injury in mice	**CMDB** (Neuroscience)
70	Kelly Hyndman		Epigenetic of Fluid-electrolyte Balance	**CMDB** (PBMM)
71	Tanecia Mitchell		Dietary Oxalate Alters Monocyte Cellular Energetics and Transcription in Healthy Subjects	**CMDB** (Immunology, PBMM)
72	Bin Ren	Reagan Hattaway	FoxO1-Activated CD36 Transcription Switches Arteriolar Differentiation of Endothelial Cells	**CMDB** (BSSB, Cancer Biology, Neuroscience, PBMM)
73	Sushant Bhatnagar		Identifying and characterizing factors that affect insulin secretion in type 2 diabetes	**GGB** (BSSB, CMDB, PBMM)
74	Jake Chen		AI.Med Lab	**GGB**
75	Mick Edmonds		Edmonds Lab: Cancer Genetics Research	**GGB** (Cancer Biology, PBMM)
76	Brittany Lasseigne		Integrative Omics in Human Diseases	**GGB** (Cancer Biology, CMDB, Neuroscience)
77	John Mountz		IL-4R regulates B cell development in systemic lupus erythematosus	**Immunology**
78	Hongwei Qin		Deficiency of Socs3 Leads to Brain-targeted EAE	**Immunology**
79	Carrie Coleman		Entry of Epstein-Barr Virus Type 2 Into T-cells Requires gp350 and CD21	**Microbiology**
80	Michael Gray	Rhea Derke	Inorganic polyphosphate accumulation in Escherichia coli is regulated by DksA but not by (p)ppGpp	**Microbiology** (BSSB)

#	Lab PI	Presenter (if different than PI)	Title	Primary Theme (& Additional Themes)
81	Carlos Orihuela		Dissecting pneumococcal pathogenesis	**Microbiology** (Immunology)
82	W. Edward Swords		Opportunistic airway infections	**Microbiology** (GGB, Immunology, PBMM)
83	Andrew Arrant			**Neuroscience**
84	Jeremy Herskowitz			**Neuroscience** (CMDB, GGB, PBMM)
85	Shinichi Kano			**Neuroscience**
86	Heinrich Matthies		Autism-linked dopamine transporter mutation alters striatal dopamine neurotransmission and dopamine-dependent behaviors.	**Neuroscience** (BSSB, CMDB)
87	Minae Niwa	Kongpyung Kim		**Neuroscience**
88	Summer Thyme		Phenotypic Landscape of Schizophrenia-Associated Genes Defines Candidates and Their Shared Functions	**Neuroscience** (BSSB, CMDB, GGB, PBMM)
89	Laura Volpicelli-Daley		Using Expansion Microscopy to Unravel the Role of LRRK2 and Rab GTPases in presynaptic targeting of alpha-synuclein	**Neuroscience** (BSSB, CMDB, PBMM)
90	Laura Volpicelli-Daley		Preventing cognitive deficits in Parkinson's Disease	**Neuroscience** (BSSB, CMDB, PBMM)
91	Talene Yacoubian	Rachel Underwood	14-3-3θ reduces behavioral deficits and alpha-synuclein inclusions in the PFF model	**Neuroscience** (CMDB, GGB, PBMM)
92	Kirk Habegger	Shelly Nason	Neuroendocrine targets of diabetes and obesity	**PBMM** (BSSB, CMDB, Neuroscience)
93	Jennifer Pollock	Luke Dunaway		**PBMM** (BSSB, CMDB, GGB, Immunology)
94	Suresh Verma	Rajesh Kumari	Novel Mechanisms of Cardiac Remodeling and Regeneration	**PBMM** (BSSB, CMDB, GGB)
95	Jianhua Zhang		Circadian regulation of mitophagy	**PBMM** (BSSB, Cancer Biology, CMDB, GGB, Immunology, Microbiology, Neuroscience)

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GRADUATE BIOMEDICAL STUDENT OUTREACH

2nd Year & Above Student Poster Session | 2:15-3:15pm

#	First Name	Last Name	Theme/Program	Title
96	Marvin	Bowlin	Biochemistry, Structural, and Stem Cell Biology	Proteolytic Regulation of Polyphosphate Synthesis in Response to Nutrient Stress
97	James	Kizziah	Biochemistry, Structural, and Stem Cell Biology	Near-Atomic Resolution Cryo-EM Structure of a Staphylococcus aureus Bacteriophage Baseplate
98	Nathalia	Melo	Biochemistry, Structural, and Stem Cell Biology	Connecting Ligand-induced Dynamics to Potency: Analyzing Anti-Cancer Rexinoids by Hydrogen Deutrium Exchange Mass Spectrometry
99	Elliot	Murphy	Biochemistry, Structural, and Stem Cell Biology	Structural and biophysical characterization of HIV-1 matrix trimer binding to membranes: Implications for virus assembly
100	Gunars	Osis	Biochemistry, Structural, and Stem Cell Biology	Role of Lactate Dehydrogenase A in the acute kidney injury
101	Taylor	Davis	Behavioral Neuroscience	Regulation of Sex-Dependent Behaviors and Circuit Function by NPY
102	Reginald	Brown	Cancer Biology	Tissue-specific Cas9 zebrafish models to study tumorigenesis
103	Mateus	Mota	Cancer Biology	Merlin Tumor Suppressor Loss Induces Redox Imbalance in Breast Cancer
104	Jazmine	Benjamin	Cell, Molecular, and Developmental Biology	Identifying a novel role for a canonically Golgi-associated transport factor
105	Zhang	Li	Cell, Molecular, and Developmental Biology	CD206+ resident macrophages are associated with cyst progression in juvenile-induced cilia mutant mouse models
106	Catherine	Libby	Cell, Molecular, and Developmental Biology	Tumor cells on the move: High glucose transporter 3 expression promotes glioblastoma invasion
107	Saeid	Parast	Cell, Molecular, and Developmental Biology	The regulatory roles of Dpy30 and Ash2L in epigenetic control of vertebrate nervous system development
108	Brandon	Pope	Cell, Molecular, and Developmental Biology	Interleukin 2 enhances IFNγ-induced activation of STAT1 in subpopulations of T lymphocytes from relapsing remitting multiple sclerosis (RRMS) patients..

#	First Name	Last Name	Theme/Program	Title
109	Rachel	Underwood	Cell, Molecular, and Developmental Biology	14-3-3 proteins reduce propagation and toxicity of pathogenic α-Synuclein in vivo
110	Hala	Zein-Sabatto	Cell, Molecular, and Developmental Biology	Understanding the secretion mechanism of VAPB MSP
111	Marcus	Davis	Immunology	Characterization of Myeloid Cell Populations in HIV-1 infected Individuals
112	Sarah	Faxel	Immunology	
113	Vishal	Sharma	Immunology	Interferon gamma induced STAT1 activation in CD4, but not CD8 T cells, is associated with disease activity of Rheumatoid Arthritis.
114	Rachel	Andrews	Microbiology	Identification of the Benzimidazoles as a Novel Metalloantibiotic Class against Multi-Drug Resistant Staphylococcus aureus
115	Eric	Carlin	Microbiology	Extensive transcriptomic and proteomic changes suppress activation of HIV-1 latently infected T cells.
116	Cameron	Crawford	Microbiology	Pyrazolopyrimidinones are copper interacting antimicrobials that disrupt the metabolism of multi-drug resistant S. aureus
117	Joseph	Gould	Microbiology	A Novel Polymerase-Cofactor Interaction in Vesicular Stomatitis Virus
118	N'Toia	Hawkins	Microbiology	Shape-Shifter: Restructuring of the Bacteriophage ϕ12 Capsid in the Presence of *S. aureus* Pathogenicity Island, SaPIbov5
119	Jordan	Lingo	Microbiology	Solving the Structure of IgG Variable Regions in the Context of IgA Nephropathy
120	Abby	McConahay	Microbiology	Factor-dependent and independent regulation of transcription by RNA polymerase I
121	Saman	Najmi	Microbiology	The Synthesis of rRNA is Regulated with Growth Phase
122	Jason	Needham	Microbiology	BKPyV polyomavirus requires host DNA replication for robust viral production

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GRADUATE BIOMEDICAL STUDENT OUTREACH

T32 Student Poster Session | 2:15-3:15pm

#	First Name	Last Name	Theme/Program	Title
123	Morgan	Blake	Biochemistry, Structural, and Stem Cell Biology	Structural and Functional Determinants of Influenza NS1 Intracellular Localization
124	Rachael	Orlandella	Cancer Biology	Increased prevalence of dysregulated T cell immunity with obesity impairs immunotherapeutic efficacy in renal cancer
125	Maheshika	Somarathna	Cell, Molecular, and Developmental Biology	A Novel rat model of balloon angioplasty for the understanding of accelerated restenosis in AVF
126	Mackenzie	Davenport	Genetics, Genomics, and Bioinformatics	Targeting oncogenic non-coding RNA in lung cancer
127	Rebecca	Hauser	Genetics, Genomics, and Bioinformatics	Investigation of Epigenetic G9a Regulation of Hippocampal Hyperexcitability
128	Ashlyn	Anderson	Immunology	Understanding the role of STAT4 in CD4 T cell mediated neuroinflammation
129	Samuel	Blum	Immunology	MDA5, a Janus-faced dsRNA sensor in Coxsackievirus-accelerated autoimmune diabetes
130	Ashley	Landuyt	Immunology	Cooperation between T-dependent antibodies and IL-10 reduces inflammatory bowel disease susceptibility
131	Benjamin	Hunt	Microbiology	Experimental Modeling of Infectious Exacerbations in a Cigarette Smoke-Induced Ferret Model of COPD
132	Meagan	Jenkins	Microbiology	Lung-migratory Dendritic Cells traffic into the spleen after influenza virus infection
133	Katherine	Kruckow	Microbiology	Dissection of the inflammatory status of hearts in aging mice with invasive pneumococcal disease
134	Ashleigh	Riegler	Microbiology	The role of necroptosis in the development of adaptive immunity to airway infection is pathogen type-dependent.
135	Reena	Beggs	Pathobiology and Molecular Medicine	Structural changes to desmosomal architecture during assembly and maturation