

Germ Cells

Session 1 THEMES IN GERM CELL BIOLOGY

WEDNESDAY 10/1/2008, 7:30 PM

S. Strome

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
1	Gurdon	The female germ line in vertebrates and its reprogramming activity	30
2	Extavour	Evolution of developmental pathways—Can evo-devo paradigms be applied to the germline?	30
3	Surani	Genetic and epigenetic regulators of the germ line and pluripotency in mice	30
4	Page	A combination of germ-cell-intrinsic and extrinsic factors governs meiotic initiation in mouse embryos	30
5	Spradling	Genetic and live imaging studies of ovarian follicle formation	30

Session 2 REPROGRAMMING AND THE OOCYTE TO EMBRYO TRANSITION

THURSDAY 10/2/2008, 9:00 AM

S. DiNardo

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
6	Ueno	Two-step oligoclonal development of male germ cells	12
7	Huynh	Live imaging of germline stem cells in <i>Drosophila</i> asymmetric growth and self-renewal regulation	12
8	Yao	Novel and critical roles of pluripotency regulators in reprogramming the early embryo	22
9	Namekawa	Role of non-coding RNA in X-inactivation from gamete to embryo	12
10	Cheng	CDK-1-dependent activation of MBK-2 during the oocyte-to-embryo transition in <i>C. elegans</i>	12
11	Hanyu-Nakamura	Pgc-mediated transcriptional repression blocks the maternal-to-zygotic transition in <i>Drosophila</i> germ cells	12
12	Mitalipov	Oocyte-induced epigenetic reprogramming	22
13	Cree	Defining the mammalian mitochondrial genetic bottleneck	12

Session 3 POSTER SESSION I

THURSDAY 10/2/2008, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
14	Anderson	<i>Stra8</i> regulates meiotic initiation in both spermatogenesis and oogenesis in mice	
15	Angeles	Characterization of NANOS3 expression and function during human germ cell development	
16	Aravin	Piwi proteins and piRNAs in germline development in mouse	
17	Arur	Systematic identification of MPK-1 ERK substrates functioning in <i>C. elegans</i> germ cell development	

18	Barbosa	A meiotic checkpoint that monitors chromatin remodeling in the oocyte independently of DNA repair revealed by characterization of the <i>Drosophila</i> cohesin-associated protein Pds5
19	Barckmann	<i>Drosophila</i> sperm lacking protamine A and B are fertile, but show increased sensitivity to X-rays
20	Ciosk	Meiotic prophase arrest depends on GLD-1-mediated translational repression of cyclin E
21	Pain	The miRNA mir34C plays a key role during late steps of spermatogenesis
22	Busseau	Orb-mediated regulations controlling oogenesis progression in <i>D. melanogaster</i>
23	Byers	Directed differentiation of induced pluripotent stem cells derived from human adult skin fibroblasts
24	Byrne	Reprogramming of Rhesus monkey adult dermal fibroblasts into induced pluripotent stem cells
25	Castañeda	In search of Maelstrom-interacting proteins in mouse germ cells
26	Maldonado	Expression of the dead box RNA helicases ddx6a and ddx6b in the zebrafish germline
27	Britto	The germline expression signature of somatic cancer
28	Chambeyron	asiRNA-mediated nuclear sequestration of retrotransposon transcripts in the <i>Drosophila</i> female germ line
29	Chandran	Molecular cloning of a novel gene CLP-1 expressed in testis
30	Chatterjee	Neurotransmitter transporter required for <i>Drosophila</i> spermatogenesis
31	Chavez	Characterization of DNMT3A2 expression and function in human germ cell differentiation
32	Cheng	Regulated trafficking of Eph/MSP receptor during oocyte meiotic maturation in <i>C. elegans</i>
33	Cheng	Live imaging of <i>Drosophila</i> male germline stem cells reveals cell cycle delays in response to misoriented centrosomes
34	Chuva de Sousa Lopes	Derivation of germ cells from human embryonic stem cells
35	Cocquet	Sly multicopy-gene knock down recapitulates the spermiogenesis phenotypes observed in mice with deletions of the Y long arm
36	Cox	Mutations in <i>clueless</i> cause Parkinson-like phenotypes in the <i>Drosophila</i> ovary and muscle
37	Crittenden	Germ cell cycle rates in <i>C. elegans</i> <i>FBF-1</i> and <i>FBF-2</i> mutants
38	Dalfo	RNAi screening to identify genes that enhance the <i>C. elegans</i> proximal germline tumor phenotype
39	Decotto	A screen to identify new regulators of meiotic progression in the <i>Drosophila</i> ovary
40	Eckert	Crucial role of transcription factor AP-2 γ in the development of primordial germ cells
41	Walstrom	<i>C. elegans</i> RNA helicase A genetically interacts with <i>rde-2</i> and <i>mut-7</i> to regulate oocyte development and small RNA levels
42	Flores	Testing the functional consequences of adaptive protein evolution at the <i>Drosophila</i> germline stem cell regulatory gene <i>bag of marbles</i>

43	Flores	Inhibitory effects of tobacco toxins on human germ cell development
44	Gill	The miRNA cluster, <i>miR-290</i> through <i>miR-295</i> , is an important regulator of early embryogenesis and germ cell development
45	Gonsalvez	SM proteins specify germ cell fate by anchoring Tudor in the pole plasm
46	Govindan	Multiple G-protein signaling pathways function in the somatic gonad to regulate oocyte meiotic maturation in <i>C. elegans</i>
47	Gupta	The zebrafish <i>magellan</i> gene functions during oogenesis to establish the animal-vegetal axis of the egg
48	Hasegawa	Analysis of Notch signaling in mouse testis
49	Hayashi	A model stem cell system for mouse germ cell formation and epigenetic reprogramming
50	Heaney	Reduced expression of eukaryotic translation initiation factor 2 β (<i>Eif2s2</i>) suppresses testicular germ cell tumor susceptibility in mice
51	Houwing	Zili is required for germ cell differentiation and meiosis in zebrafish
52	Castrillon	Foxo3 is a P13K-dependent molecular switch controlling the initiation of oocyte growth
53	Juriscova	TAp73—A maternal lethal effect gene
54	Kamminga	A role for the methyltransferase HEN1 in small RNA biogenesis and oogenesis
55	Suh	Identification and characterization of discrete and novel oocyte-specific immunoreactive antigens
56	Kapp	A novel mutation resulting in loss of the gonad in zebrafish
57	Kardash	The role of Rac and Rho in promoting motility of primordial germ cells in zebrafish
58	Kawasaki	Translation of major sperm proteins is controlled by IFE-1, a germline-specific isoform of eIF4E, in <i>C. elegans</i>
59	Kee	<i>DAZ</i> genes regulate human germ cell differentiation and progression to meiosis
60	Kim	Polymorphic expression of <i>DAZ</i> proteins in the human testis
61	Kawasaki	Distinct roles of <i>cdc-25</i> family members in <i>C. elegans</i> germline development
62	Kim	RNP-8 and GLD-3, antagonistic co-activators of GLD-2 cytoplasmic poly(A) polymerase
63	Kimura	Regulation of pluripotency in mouse primordial germ cells
64	Kitadate	<i>Drosophila</i> male germline-stem cell-niche formation is antagonistically regulated by Notch and Egfr signaling
65	Kossack	Isolation and characterization of pluripotent human spermatogonial stem cell-derived cells
66	Krentz	Regulation of germ cell pluripotency by the doublesex-related gene <i>Dmrt1</i>
67	Kugler	Regulation of <i>Vasa</i> by <i>Gustavus</i> and <i>Wallenstein</i>
68	Perez	Is <i>Rad51</i> an anti-apoptotic protein oocytes?
69	Kuo	The <i>Septin12</i> expression level is critical for spermatogenesis

70	Lin	Tackling human imprinting regulation by studying a unique pregnancy composed by a normal baby and genetically identical partial biparental hydatidiform mole
71	La Salle	Meiotic proteins are modified by SUMO1 and/or SUMO2/3 in mouse spermatocytes
72	Leatherman	Zfh-1 controls self-renewal in the <i>Drosophila</i> testis stem cell niche
73	Leopold	Repression of replicative aging and germ cell tumor formation in <i>C. elegans</i>
74	Draper	Zebrafish oogonial stem cells
75	Li	SET-2 and WDR-5 regulate tri-methylation of histone H3 lysine 4 (H3K4me3) in the germline of <i>C. elegans</i>
76	Lindgren	A pluripotency and self-renewal program controls the expansion of cancer initiating cells in germ cell cancer

Session 4 GERM CELL SPECIFICATION AND PATTERNING

THURSDAY 10/2/2008, 7:30 PM

J. Kimble

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
77	Newmark	Development and differentiation of germ cells in planarians	22
78	Laird	Wnt5a-Ror2 signaling in the self-renewal and migration of mouse primordial germ cells	22
79	Schuh	The meiotic spindle moves to the cortex of mouse oocytes by myosin-dependent pulling on a Formin-2-nucleated cytoplasmic actin network	12
80	Yang	RanGAP and its regulation of germ cell division in <i>Drosophila</i>	12
81	Marlow	Bucky ball regulates oocyte polarity and limits a polarized follicle cell fate	12
82	Dosch	Bucky ball organizes germ plasm assembly in the zebrafish oocyte	12
83	Lehmann	Germ cell migration	22
84	Saga	Nanos2 promotes male germ cell development by preventing female genetic program	22

Session 5 GERM CELL FORMATION IN VIVO AND IN VITRO

FRIDAY 10/3/2008, 9:00 AM

R.S. Hawley

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
85	Sugimoto	Reconstituting <i>C. elegans</i> germ granules in mammalian cells	22
86	Cook	Hijacking germ cells for cancer—Examining a 'dead end' in male germ cell development	12
87	Adams	Germ cell sex determination in mice	12
88	Sebastiano	A defined in vitro culture system for the specification of a synchronized population of mouse germ cells	12
89	Nicholas	Oocyte commitment and maturation from embryonic stem cells	12
90	Pain	Ectopic expression of Cvh (Chicken Vasa Homologue) mediates the reprogramming of chicken embryonic stem cells to a germ cell fate	12
91	Noce	Potentiality of creating gametes from ES cells in culture	22

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
92	Viveiros	NEDD1 regulates γ -tubulin recruitment to MTOCs and contributes to meiotic spindle organization in mammalian oocytes	
93	McGrew	The culture and manipulation of primordial germ cells from the chicken	
94	Malki	Maelstrom—A novel mammalian maternal-effect factor in the piRNA pathway	
95	Matson	Dmrt1 is required in mouse spermatogonial stem cells	
96	Wawersik	JAK/STAT regulation of <i>Drosophila</i> germline sexual development	
97	McElroy	Developmental competence of immature and failed/abnormally fertilized human oocytes	
98	McEwen	The <i>C. elegans</i> P granule protein GLH-1 associates with Dicer and appears up-regulated by <i>miR-67</i> and <i>miR-83</i>	
99	McGovern	A latent niche mechanism for tumor initiation	
100	Medeiros	Reprogramming spermatogonial stem cells	
101	Jemc Mierisch	Dissection of the mechanisms regulating germline-soma interactions in the <i>Drosophila</i> gonad	
102	Miles	Regulation of the mouse fetal germ cell cycle	
103	Mohd	A genetic screen to identify partners of PUF-8, a <i>C. elegans</i> member of the PUF family of RNA-binding proteins	
104	Subramaniam	<i>C. elegans</i> proteins PUF-8 and MEX-3 promote germline stem cell mitosis	
105	Mueller	The mouse X chromosome is enriched for multicopy testis gene exhibiting post-meiotic expression	
106	Nadarajan	MSP and GLP-1/Notch signaling coordinate oocyte growth and meiotic maturation in <i>C. elegans</i>	
107	Nakagawa	Hierarchical composition of undifferentiated spermatogonia in the mouse testis	
108	Nakamura	Identification of the tubular structures producing germ cells in the medaka adult ovary	
109	Narbonne-Reveau	The cyclin-dependent kinase inhibitor Dacapo promotes genomic stability during premeiotic S phase	
110	Nguyen	Characterization of induced pluripotent stem cells derived from human adult skin fibroblasts	
111	Okegbe	A role for the Notch pathway in the establishment of a gonadal stem cell-niche system	
112	Olsen	Persistent DNA damage and consequences for mutagenesis in male germ cells of <i>OGG1</i> ^{-/-} Big Blue® mice exposed to Benzo(a)pyrene	
113	Johnson	Induction of primordial germ cells from pluripotent cells in axolotl explants and embryos	
114	Papaioannou	Sertoli-cell Dicer is essential for spermatogenesis in mice	

115	Park	Epigenetic reprogramming of primordial germ cells from human embryonic and induced pluripotent stem cells
116	Payne	An essential role for <i>Sin3a</i> in maintaining the germline stem cell niche in mouse testis
117	Pepling	Estrogen signaling regulates neonatal oocyte development by multiple mechanisms
118	Petrella	Numerous synMuv B genes show temperature sensitive larval lethality that is suppressible by germline chromatin modifiers
119	Rangan	Translational control in germline specification and maintenance
120	Rathke	Chromatin remodeling during <i>Drosophila</i> spermatogenesis—More than transition proteins and protamines?
121	Matin	The splicing factor SF1 is a testicular germ cell tumor susceptibility gene
122	Rybarska	GLS-1 is essential for germplasm integrity/germ cell identity and complexes with GLD-3 to regulate germline survival and sex determination
123	Saba	Nanos2 regulates the transcriptome in embryonic male germ cells
124	Sabour	The role of the transcription factor GCNF in germ cell development and reproduction
125	Sada	Nanos2 plays an essential role in the maintenance of spermatogonial stem cells
126	Schuh-Huerta	Genetic determination of the human female oocyte pool
127	Maine	Regulation of meiotic silencing in <i>C. elegans</i>
128	Tanaka	A role of Tdrd9 in male meiosis and regulatory pathway of transposon RNA and genome methylation
129	Siemen	The function of the mammalian Pumilio gene, <i>Pum1</i> , in early embryonic development of mice
130	Navarro	TIA-1, a stress granule component, is required to induce germ cell apoptosis under stress conditions in <i>C. elegans</i>
131	Slagsvold	DNA adducts in sperm from mice exposed to Benzo(a)pyrene, and in embryos fertilized with such sperm in vitro
132	Goudarzi	Implications for function of Dead end by its localization and binding to specific mRNA targets
133	Stanfield	Regulation of <i>C. elegans</i> spermiogenesis by protease signaling
134	Song	Dicer regulates early development and germline gene expression in the sea urchin
135	Southard	Cell adhesion in <i>Drosophila</i> germline stem cell niche formation
136	Starich	Innexins and oocyte maturation in <i>C. elegans</i>
137	Sugimoto	Retinoids coordinate the differentiation of undifferentiated spermatogonia and the cycle of Sertoli cells in mice
138	Suzuki	Nanos2 binds to deadenylation complex and may play a role in degradation of specific RNAs
139	Suzuki	<i>Nanos3</i> -3' UTR is required for translational suppression of <i>Nanos3</i> in mouse embryonic somatic cells

140	Tan	Myosin phosphatase plays a role in incomplete cytokinesis
141	Tapia	Methylation erasure during differentiation of mouse embryonic stem cell into primordial germ cells
142	Tiedau	Tdrd6 is essential for spermiogenesis in mice
143	Tootle	Lipid and steroid signals regulate the developmental timing of <i>Drosophila</i> follicle maturation via Cyp18a1
144	Hagemeier	E2F6—A specificity factor for DNA methylation-based silencing of germ cell genes in early mouse development
145	Vasileva	Germ cell-specific Tdrd6 interacts with components of the piRNA pathway
146	Drummond-Barbosa	α -endosulfine is a conserved protein required for oocyte meiotic maturation in <i>Drosophila</i>
147	Voronina	Nup98/NPP-10—A link between nuclear pores and germ granules in <i>C. elegans</i> and mouse
148	Yanowitz	Crossover control on the <i>C. elegans</i> X chromosome
149	Wang	Regulation of germ granules by a phosphatase
150	Wang	Molecular dissection of germ cell development in the planarian <i>S. mediterranea</i>
151	Western	Cell cycle and pluripotency in mouse fetal male germ cells
152	Wiszniak	Post-transcriptional regulation of the HuB 3'UTR restricts expression of the HuB RNA-binding protein to the germ cells of zebrafish
153	Yen	The hnRNP protein DAZAP1 is required for spermatogenesis but not oogenesis

Session 7 GERM LINE STEM CELLS

FRIDAY 10/3/2008, 7:30 PM

R. Lehmann

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
154	DiNardo	The Lines protein is a novel factor necessary to discriminate between stem cell and niche fate	22
155	Fuller	Regulatory logic of stem cell self-renewal in the male germ line	12
156	Hubbard	Insulin signaling is required for robust germline proliferation in <i>C. elegans</i>	12
157	Yuan	Characterization of a novel checkpoint mechanism that monitors centrosome orientation in <i>Drosophila</i> male germline stem cells	12
158	Tanaka	Modes, location and function of germ cells in the ovary of teleost fish, medaka	12
159	Siegfried	Germline control of sex determination in zebrafish	12
160	Yoshida	Control of periodic differentiation and persistence of undifferentiated spermatogonia in the mouse testis	22
161	Kimble	Sex-specific controls of <i>C. elegans</i> germline fates	22

Session 8 EPIGENETIC REGULATION

SATURDAY 10/4/2008, 9:00 AM

A. Surani

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
162	Reik	Epigenetic regulation of lineage commitment and pluripotency in the mammalian embryo	22
163	Kobayakawa	Nanos3 is essential for acquisition of germ cell identity in mice	12
164	Alberio	Epigenetic reprogramming of mammalian cells with pluripotent Axolotl oocyte extracts	12
165	Peters	Establishing chromatin states in the early mouse embryo—Integrating parental specific contributions	12
166	van Wolfswinkel	Involvement of nucleotidyl transferases in RNAi and embryonic cell division in <i>C. elegans</i>	12
167	van der Heijden	Relaxation of transposon silencing at the initiation of mammalian meiosis	12
168	Katz	Spr-5, the <i>C. elegans</i> ortholog of LSD1/KDM1, contributes to germline immortality by reprogramming epigenetic memory	12
169	Strome	Chromatin regulation in the germ line of <i>C. elegans</i>	22

Session 9 POST-TRANSCRIPTIONAL REGULATION OF GERM CELL DEVELOPMENT

SATURDAY 10/4/2008, 2:00 PM

Y. Saga

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
170	Richter	Translational control of germ cell development	22
171	Blackwell	Protection of specific maternal mRNAs by the P-body helicase CGH-1 in <i>C. elegans</i>	12
172	Maines	A Bam complex mediates a cap-dependent translational switch to promote stem cell differentiation	12
173	Eckmann	The novel GLD-4/GLS-1 cytoplasmic poly(A) polymerase is essential for germ stem cells and meiotic progression in <i>C. elegans</i>	12
	Schedl	No abstract	22
174	Hayashi	The role of heparan sulfate proteoglycan in germline development of <i>Drosophila</i>	12
175	Schumacher	The <i>C. elegans</i> Aurora A kinase modulates MAP kinase germline activation by direct phosphorylation of a MAP kinase inhibitor, GCK-1	12
176	Hannon	Conserved roles of small RNAs in genome defense	22

Session 10 GERMLINE PROGRAMS

SUNDAY 10/5/2008, 9:00 AM

A. Spradling

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
177	Hawley	The <i>Drosophila</i> Matrimony protein is a stoichiometric inhibitor of Polo kinase	22
178	Wolfner	Egg activation in <i>Drosophila</i>	22
179	Greenstein	Somatic G-protein signaling coordinates multiple aspects of the MSP-dependent meiotic maturation program in <i>C. elegans</i>	22

180	Drummond-Barbosa	Insulin levels control germline stem cell maintenance via the niche in <i>Drosophila</i>	12
181	Wang	Regulation of male meiosis by the X chromosome-linked genes in mice	12
182	Murphy	Targets and coregulators of the conserved testis regulator DMRT1	12
183	Xu	Conservation of a male reproductive function among <i>Boule</i> homologs of human <i>Deleted in Azoospermia (DAZ)</i> family across metazoa	22
184	Eppig	Oocyte control of granulosa cell development and function	22