

Germ Cells

Session 1 THEMES IN GERM CELL BIOLOGY

WEDNESDAY 10/11/2006, 7:30 PM

S. Strome / A. Ephrussi

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
1	Ephrussi	Oskar non-coding RNA and protein-based functions are required for <i>Drosophila</i> germline formation	20
2	Jaenisch	Stem cells and nuclear reprogramming	20
3	Gallo	Soma-germline asymmetry of P-body related RNPs in <i>C. elegans</i> embryos	13
4	Fuller	Still in Eden—Male germ line stem cells in the niche maintain a centrosomal Eve	20
5	Mello	RNAi-related pathways and germ-line maintenance in <i>C. elegans</i>	20

Session 2 EPIGENETIC REGULATION

THURSDAY 10/12/2006, 9:00 AM

M. Fuller / T. Bestor

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
6	Allis	Chromatin biochemistry and epigenetics	35
7	Bestor	An epigenetic machine in mammalian germ cells	20
8	Fischer	Control of gene imprinting by DNA demethylation in <i>Arabidopsis</i>	20
9	Kelly	Genome-wide chromatin remodeling in establishment and maintenance of the germ lineage in <i>C. elegans</i>	20
10	van der Heijden	Massive nucleosome replacement in the sex chromosomes during mammalian male meiosis	13
11	Nakamura	<i>Drosophila polar granule component</i> encodes a small protein that acts as a germ cell-specific P-TEFb inhibitor	13

Session 3 POSTER SESSION I

THURSDAY 10/12/2006, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
12	McGovern	Genome-scale high-content phenotypic analysis of sterility in <i>C. elegans</i>	
13	Surani	Mouse germline determinant Blimp1 associates with Prmt5 and directs histone arginine methylation	
14	Angeles	Characterization of <i>Nanos</i> expression and function in hESC-derived germ cells	
15	Aravin	Piwi proteins and associated small RNAs in germline development	
16	Clarke	Maternal stem-loop binding protein is essential for early embryonic development in the mouse	
17	Arur	Functional genomics approach identifies novel targets of ERK that control germ cell development in <i>C. elegans</i>	

18	Hu	In germ cells of mouse embryonic ovaries, the decision to enter meiosis precedes premeiotic DNA replication
19	Banani	Efficient differentiation of germ cells from human embryonic stem cells using a germ cell specific reporter system
20	Barbosa	A maternal screen to isolate <i>Drosophila</i> meiotic genes required for oocyte development
21	Suh	MES-4, an autosome-associated histone methyltransferase that participates in silencing the X chromosomes in the <i>C. elegans</i> germ line
22	Beyret	A novel class of small RNAs in mouse spermatogenic cells
23	Blackwell	CGH-1 and P-body functions in <i>C. elegans</i>
24	Bolcun-Filas	Mouse SYCE2 is required for chromosome synapses during female meiosis
25	Xu	Comparative and functional genomics approaches to identify and to characterize conserved regulators to germ cell development
26	Busseau	Orb-mediated regulation of cell cycle during early oogenesis in <i>D. melanogaster</i>
27	Checchi	<i>emb-4</i> is a conserved gene required for germline-specific chromatin remodeling during <i>C. elegans</i> embryogenesis
28	Chuva de Sousa Lopes	X chromosome activity in mouse XX primordial germ cells
29	Cinquin	Understanding the regulation of <i>C. elegans</i> germline stem cells—A combined experimental and modeling approach
30	contreras	Depletion of translation initiation factor 4G induces germ cell apoptosis in <i>C. elegans</i>
31	Keiper	Translation initiation factor isoforms modulate growth and apoptosis in <i>C. elegans</i> oocytes, spermatocytes and embryos
32	Cox	Milton controls the early acquisition of mitochondria by <i>Drosophila</i> oocytes
33	Crittenden	Cellular analyses of the mitotic region in <i>C. elegans</i> hermaphrodite and male germ lines
34	Crnkovich	Autonomous and non-autonomous sex determination signals play a role in the sexually dimorphic development of the <i>Drosophila</i> embryonic gonad
35	Draper	<i>Ziwi</i> is required for germ cell maintenance in zebrafish larvae
36	DeGennaro	A thioredoxin peroxidase regulates germ cell motility in <i>Drosophila</i>
37	Derijck	Quantification of double strand DNA breaks in oligospermic semen using the oocytes repair machinery
38	DiNapoli	Germ cells are not required for the formation of the embryonic testes or ovaries in turtles
39	Dosch	The <i>souffle</i> gene controls oocyte maturation in zebrafish
40	Edmonds	RNAi screen for oocyte genes that control directional sperm motility
41	Ewen	A proteomic approach to understanding male germ cell differentiation
42	Godmann	Epigenetic regulation of spermatogenesis
43	Fuchikami	Dynamics of global gene expression in primordial germ cells during mouse development

44	Furuhashi	Characterization of a global chromatin remodeling mechanism in the primordial germ cells of <i>C. elegans</i>
45	Gilboa	Soma-germ line interactions control primordial germ cell numbers in the <i>Drosophila</i> gonad
46	Gill	Dazl is required for the development of embryonic germ cells in C57BL/6 mice
47	HAN	Identifying receptors that interact with major sperm protein in <i>C. elegans</i>
48	Hanyu-Nakamura	<i>nanos</i> stabilization requires <i>pgc</i> -mediated transcriptional repression in <i>Drosophila</i> germ cells
49	Haston	Dazl null mutation and methylation of imprinted loci in germ cells of mouse embryos
50	Hayashi	Expression profiling and function of microRNA in mouse primordial germ cells
51	Heaney	Identifying the testicular germ cell tumor suppressor at the agouti locus
52	Hempel	Embryonic activity of the somatic sex determination cascade suggests a role for Doublesex (DSX) in signaling sexual identity to the germ line
53	Henckel	Epigenetic characterization of imprinting control regions in PGCs
54	Herr	RNA binding protein MOEP19 provides evidence for oocyte asymmetry and cortical pre-patterning related to blastomere polarity
55	Juliano	Sea urchin germ line determination
56	Kalamegham	<i>mojoles</i> is a retroposed GSK3 required for male fertility
57	Kato	Role of DNA methyltransferase genes in methylation of imprinted and repetitive sequences in mouse male germ cells
58	Katz	Histone H3 lysine 4 methylation and the immortality of the germline
59	Hake	Signaling meiotic resumption in <i>Xenopus</i> oocytes—XGef interacts with MAPK and membranes and mediates the early activation of polyadenylation-induced translation
60	Kelly	Oncostatin M, not LIF, supports the undifferentiated growth of human embryonic germ cell lines
61	Kimura	Regulation of development plasticity of primordial germ cells by PI3K/Akt signaling
62	Kitadate	Boss/Sev signaling from germline to soma specify the germline stem cell niche in <i>Drosophila</i> male gonads
63	Kobayakawa	An epigenetic program underlying development of ICM, epiblast and PGCs in mice
64	Kobayashi	A novel X-linked imprinted gene <i>Rhox5/Pem</i> and its expression in preimplantation embryos
65	Koubova	Retinoic acid regulates sex-specific timing of meiotic initiation in mice
66	Miller	Oocyte signals derived from polyunsaturated fatty acids control sperm recruitment
67	Kugler	Overlapping binding-sites for eIF5B and Oskar in Vasa?
68	Kunwar	How do <i>Drosophila</i> germ cells migrate through a polarized epithelium?
69	Stepinski	Spermiogenesis of algae of <i>Chara</i> ssp. Is very similar to animal spermatogenesis

70	Laird	A screen for primordial germ cell mutants in mouse embryos
71	Leatherman	Zfh1 regulates somatic stem cell behavior, and can cause non-cell autonomous self-renewal-like proliferation of germ cells in the <i>Drosophila</i> testes
72	Kim	Dazl, a male infertility gene product, can bind to dynein motor complex components and may play a role in transport of specific RNAs
73	Lee	Lip-1 and PUF proteins inhibit MAP kinase signaling to specify sexual fates in the <i>C. elegans</i> hermaphrodite germ line
74	Lee	Genetic dependence of human germ cell differentiation on the <i>PR domain containing 1 with zinc finger domain</i> gene
75	Lees-Murdock	Establishment of methylation patterns in the mouse oocyte
76	Chang	Molecular dissection of germline specification and germ-cell migration in the parthenogenetic pea aphid <i>A. pisum</i>
77	Lin	Identification of novel sterility-related Septin12 gene in human spermatogenesis
78	Maine	<i>C. elegans</i> EGO-2, a BRO1-domain protein, promotes GLP-1/Notch signaling
79	Lucifero	Expression and phylogenetic analysis of the AICDA pluriipotency cluster on mouse chromosome 6—Implications for epigenetic reprogramming

Session 4 RNA REGULATION

THURSDAY 10/12/2006, 7:30 PM

R. Ketting / C. Mello

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
80	Hannon	Piwi proteins and associated small RNAs in germline development	
81	Ketting	Zebrafish piwi is required for germ cell maintenance	17
82	Lin	<i>Drosophila</i> Piwi, an RNAi component, associates with chromatin and interacts directly with HP1a	13
83	Pane	Zucchini and Squash are novel components of the RNAi machinery in <i>Drosophila</i> germline	13
84	Lee	<i>C. elegans</i> GLD-1 mRNA targets and GLD-1 binding specificity	13
85	Spike	Roles for germ granules in messenger stabilization and RNA interference in the <i>C. elegans</i> germ line	13
86	Blackwell	CGH-1 and P-body functions in <i>C. elegans</i>	13
87	Subramaniam	Binding of maternal RNA-binding proteins to the 3' UTR is essential for the translational control of the <i>C. elegans</i> germ cell regulator NOS-2	13

Session 5 GERMLINE AND REPROGRAMMING

FRIDAY 10/13/2006, 9:00 AM

R. Jaenisch / C. Niehrs

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
88	McLaren	Primordial germ cells—An overview	35
89	Niehrs	Molecular mechanism of DNA demethylation	20

90	Wawersik	Transition of male primordial germ cells to adult germline stem cell behavior	13
91	Silva	Nanog promotes transfer of pluripotency after cell fusion	13
92	Young	Using ES cells for understanding germline genesis	13
93	Abe	Developmental properties of mouse primordial germ cells revealed by global analysis of gene expression and epigenetic state	17
94	Wang	A planarian <i>nanos</i> homolog is required for germline development in <i>S. mediterranea</i>	13

Session 6 POSTER SESSION II

FRIDAY 10/13/2006, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
95	Kistler	Transcription factor Sp1 declines sharply in male germ cells beginning at pachytene in mouse testis due to activation of an alternative promoter upstream of exon 2	
96	Madan	Consequences of Dppa4-deficiency in embryonic stem cells and knock-out mice	
98	Marlow	<i>bucky ball</i> is required to establish animal-vegetal oocyte polarity	
99	Marques	Extensive study of imprinting patterns in human spermatozoa	
100	Maruyama	<i>C. elegans egg-3</i> gene encodes an anti-phosphatase required for egg activation at fertilization	
101	Merritt	Post-transcriptional regulation—A common mode of gene regulation in the germline?	
102	Hubbard	Multiple soma-germline interactions influence germline proliferation in <i>C. elegans</i>	
103	Molyneaux	Signals from the genital ridges control the speed and direction of PGC migration	
104	Mukai	A maternal BTB/POX-ZN-finger protein, SVA53, is required for meiosis in <i>D. melanogaster</i>	
105	Murchison	Biogenesis of small RNAs in the mammalian germline	
106	nakagawa	Functional identification of actual and potential stem cell compartments in the mouse spermatogenesis	
107	Nalepka	BMPs regulate germ cell behavior via the soma	
108	Navarro	VBH-1, the <i>C. elegans</i> homolog of <i>Drosophila</i> Vasa and Belle, is present in P granules and is essential for germline function	
109	Nicholas	Germ cell differentiation from embryonic stem cells	
110	Niki	Female and male germline stem cells of <i>Drosophila</i> in culture	
111	Taketo	Cytoplasmic defect in the oocyte of an XY sex-reversed female mouse is responsible for an impairment in the second meiotic division	
112	Ohbo	Changing of chromatin architecture at the transition from stem cells to progenitor cells in testes	
113	Ooi	Histone H3.3 variant dynamics in the germline of <i>C. elegans</i>	
114	Bennett	The MAP kinase KGB-1 regulates the <i>Caenorhabditis</i> P granule protein GLH-1 and associates with CSN-5	

115	Pan	Defects in spermiogenesis in mice lacking the <i>Rnf17</i> (a ubiquitin E3 ligase) gene
116	Park	<i>Drosophila</i> germline stem cell maintenance involves an intrinsic requirement for the miRNA pathway through Loquacious-L
117	Peters	Dissecting the role of polycomb group proteins for pre-implantation embryonic development
118	Qin	Development of mouse oocytes matured in vitro from preantral follicles in medium supplemented with dbcAMP
119	Rangan	Localization and translational control of <i>pgc</i> RNA
120	Renault	Wun and Wun2 act redundantly in germ cells and soma to regulate germ cell survival and migration
121	Richardson	A germline-specific initiation factor regulates the translation of stored maternal RNAs in <i>C. elegans</i>
122	Salmon	Genetic analysis of the abundant sperm tail protein, <i>outer dense fiber 2 (Odf2)</i>
123	Sano	The <i>Drosophila enabled</i> gene controls the actin structure at the adherens junction for proper gonad morphogenesis
124	Schisa	Regulation of dynamic RNP foci in <i>C. elegans</i> oocytes by the major sperm protein (MSP) pathway
125	Segerstahl	Sperm or egg—That is the question
126	Maine	Regulation of meiotic silencing in <i>C. elegans</i>
127	Shigenobu	Molecular characterization of the embryonic gonads by gene expression profiling in <i>Drosophila</i>
128	Singson	Fertilization and gamete activation in <i>C. elegans</i>
129	Smith	<i>foiled coil</i> function is required for reliable testis attachment and coiling during <i>Drosophila</i> metamorphosis
130	Song	The forkhead transcription factor FoxY—A potential transcriptional regulator of germ-line and oocyte-specific genes
131	Spiller	HBP1 and the regulation of mitotic arrest in male germ cells
132	Stitzel	MBK-2 and EGG-3 define a cell cycle-regulated cortical complex essential for the oocyte-to-embryo transition in <i>C. elegans</i>
133	Suzuki	Nanos2 promotes acquisition of male germ cell fate
134	Takeo	Calcineurin signaling in <i>Drosophila</i> female meiosis
135	Tang	GM114, a potential germ cell differentiation factor
136	Thomson	Isolation of a Tudor containing complex from <i>Drosophila</i> embryos
137	Deng	Lethal giant larvae interacts with aPKC and Bazooka in regulating oocyte polarity
139	Maldonado	The conserved genes <i>cgh-1</i> and <i>car-1</i> in the germline of zebrafish
140	Vogt	Transcriptional and translational control of AZFa genes in human male germ line

141	Voronina	A subset of nucleoporins is required for perinuclear localization of germ granules in <i>C. elegans</i> embryos
142	Voutev	Alterations in ribosome biogenesis cause specific defects in <i>C. elegans</i> hermaphrodite gonadogenesis
143	Yanowitz	Crossover control in <i>C. elegans</i> meiosis
144	Wallenfang	Changes in male germline stem cell cycle activity during aging of <i>D. melanogaster</i>
145	Walstrom	<i>C. elegans</i> RNA helicase A and transcription regulation
146	Wang	Investigating the role of Tudor in the transport of mtrRNAs to the germ plasm
147	Coffman	Assembling the networks regulating programmed cell death in <i>Drosophila</i> primordial germ cells
148	Yang	Mouse SYCP2 is required for synaptonemal complex assembly and chromosomal synapsis during male meiosis
149	yang	Roles of PTP-2 tyrosine phosphatase and MAP kinase cascade in <i>C. elegans</i> oocyte maturation
151	Zhu	Mapping and identification of candidate testicular germ cell tumor genes from the 129.MOLF-Chr 19 mouse strain

Session 7 GERMLINE STEM CELLS

FRIDAY 10/13/2006, 7:30 PM

J. Kimble / N. Geijsen

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
152	Kimble	Controls of <i>C. elegans</i> germline stem cells	20
153	Matunis	Coordinate regulation of germine and somatic stem cells in the <i>Drosophila</i> testis by the Jak-Stat inhibitor Socs36E	20
154	Maines	Stonewalling germline stem cell differentiation through epigenetic controls	17
155	Geijsen	Markers of in vivo germline differentiation	20
156	Kee	Enrichments of germ cells from human embryonic stem cells	13
157	Hobbs	Role of the tumor suppressor PLZF in maintenance of germ stem cell potential	13
158	Yoshida	Testicular niche for undifferentiated spermatogonia in mice	13

Session 8 GERM CELL PATTERNING AND SPECIFICATION

SATURDAY 10/14/2006, 9:00 AM

R. Lehmann / G. Seydoux

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
159	Seydoux	Regulation of the oocyte-to-embryo transition in <i>C. elegans</i>	20
160	Gupta	The role of <i>magellan</i> in animal-vegetal polarity during zebrafish oogenesis	13
161	Chambers	Nanog, pluripotency and germ cells	13
162	Lehmann	Germ cell development in <i>Drosophila</i>	20

163	Saitou	A network of transcriptional regulators involved in the generation of the germ cell lineage in mice	20
164	Reinke	Embryonic P granule-specific proteins required for <i>C. elegans</i> germ cell development	13
165	Couderc	Interaction between Polo and Bic-D proteins links oocyte determination and meiosis control in <i>Drosophila</i>	13
166	Bhattacharya	Interaction of mouse <i>dead end</i> with APOBEC-3—Possible role in sterility and germ cell tumor development	13

Session 9 GERMLINE PROGRAMS

SATURDAY 10/14/2006, 2:00 PM

T. Orr-Weaver / A. Villeneuve

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
167	Villeneuve	Chasma formation and spindle assembly during <i>C. elegans</i> oocyte meiosis	20
168	Costa	Central element protein SYCE2 is required for synapsis and double strand break repair in male meiosis	13
169	Dernburg	Homologous chromosome pairing and synapsis are linked to cytoskeletal remodeling during meiosis	20
170	Orr-Weaver	Dynamic chromosome architecture and a histone code in meiosis	20
171	Zarkower	Mammalian Doublesex homologs control multiple aspects of germ cell development	13
172	Casper	Analysis of <i>Drosophila</i> germ cell sex determination	13
173	Ahmed	The GLD-2 poly(A) polymerase may modulate of replicative aging in <i>C. elegans</i> germ cells	13

Session 10 GAMETOGENESIS AND FERTILIZATION

SUNDAY 10/15/2006, 9:00 AM

A. Surani / D. Page

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
174	Page	Regulation of meiotic initiation in mice	20
175	Brubacher	Differentiation of nurse cells and oocytes in female germline cysts of the polychaete worm, <i>O. labronica</i>	13
176	Braun	Posttranscriptional control during murine spermatogenesis	20
177	Castrillon	Discovery of genes specifically expressed in the mammalian ovary	17
178	Evsikov	Conservation vs. uniqueness in egg transcriptomes—Maternal molecules mediating development and speciation	13
179	Loveland	Hedgehog signaling in the adult mouse testis	13
180	Brill	PIP ₂ required for male germ cell polarity and sperm tail formation in <i>Drosophila</i>	13