

Yeast Cell Biology

Session 1 MICROTUBULES AND SPBs

TUESDAY 8/16/2005, 7:30 PM

M. Rose

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
1	Martin	Regulation of the formin For3p by microtubule plus ends in the establishment of cell polarity in fission yeast	12
2	Berman	<i>C. albicans</i> microtubules drive nuclear dynamics and connect cell cycle progression to morphogenesis	12
3	Zaichick	Role of Gpa1 and Fus3 in Kar3 function and microtubule dynamics	12
4	Gupta	Kip3, a microtubule motor and depolymerase required for Kar9-dependent spindle positioning in budding yeast	12
5	Miller	The CLIP170 homologue Bik1p promotes the phosphorylation and asymmetric localization of Kar9p at SPBs	12
6	Vogel	γ -tubulin functions in Kar9-dependent microtubule organization in yeast	12
7	Rosenberg	Ppc89p, a novel fission yeast spindle pole body protein required for spindle formation	12
8	Davis	The organization of the core proteins of the spindle pole body	12
9	Höög	Tomography shows the way of interphase microtubules in fission yeast	12
10	Kotwaliwale	The Ipl1/Aurora protein kinase regulates bipolar spindle assembly	12

Session 2 SIGNALING AND NETWORKS

WEDNESDAY 8/17/2005, 9:00 AM

D. Lew

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
11	Cyert	The novel calcineurin targets, Slm1p and Slm2p, are involved in sphingolipid-mediated signaling	12
12	Devasahayam	Calcium/manganese ion homeostasis links calcineurin and TOR signaling pathways to regulate cell growth	12
13	Kuchin	Nitrogen levels and Tor regulate the Snf1 kinase	12
14	Kamada	Tor2 directly phosphorylates the Ypk2 to regulate cell integrity pathway	12
15	Winter	A pathway linking activation of the Smk1 MAPK to the completion of meiosis	12
16	Westfall	Regulation and maintenance of signaling specificity during hyperosmotic stress in <i>S. cerevisiae</i>	12
17	Strickfaden	A mechanism for cell cycle regulation of the pheromone response pathway	12
18	Jansen	Regulation of the RAM network kinase Cbk1 and its activity towards the transcription factor Ace2	12

19	Hirsch	cAMP-independent regulation of PKA substrate phosphorylation by kelch repeat proteins that function in the Gpa2 pathway	12
20	Peeters	The <i>S. cerevisiae</i> Kelch-repeat proteins, Krh1 and Krh2, are novel effectors of the G α -protein Gpa2, and downregulate PKA	12
21	Yoshida	Control of Rho-GTPases and the cytoskeleton by the polo-kinase Cdc5	12

Session 3 POSTER SESSION I

WEDNESDAY 8/17/2005, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
22	Cannon	Pho85 cyclins Pcl6 and Pcl7 regulate a DNA damage response through Glc7 protein phosphatase	
23	Baldwin	Cell cycle regulation of the SMT3/SUMO isopeptidase SMT4/ULP2	
24	Kitchen	Loss of <i>SOD1</i> and <i>LYS7</i> sensitizes <i>S. cerevisiae</i> to hydroxyurea and DNA damage agents and downregulates <i>MEC1</i> pathway effectors	
25	Bastajian	A functional genomic approach to identify novel regulators of G1-specific transcription	
26	Fearon	The role of Apq12 in cell cycle regulation in budding yeast	
27	Harvey	Hyperphosphorylation of Swe1 regulates entry into mitosis	
28	Huang	The Pho85 cyclin dependent kinase regulates G1 transcription via phosphorylation of the transcription inhibitor Whi5	
29	Liu	The regulation and function of Swe1 in response to DNA replication stress	
30	Mui	Activation of APC ^{Cdc20} by adenovirus protein E4orf4 is mediated through a PP2A-dependent mechanism in <i>S. cerevisiae</i>	
31	Ostapenko	Search for novel targets of the anaphase promoting complex (APC)	
32	Padte	Positioning the cell division plane in fission yeast	
33	Pal	Control of mitotic entry by Mih1, the budding yeast homolog of Cdc25	
34	Vallen	Characterization of cytokinesis mutants in <i>S. cerevisiae</i>	
35	Wang	Phosphatase 2A negatively regulates mitotic exit in <i>S. cerevisiae</i>	
36	Futcher	Transcriptional regulation at "start" by the G1 cyclin Cln3	
37	Iwase	A direct role of a Cdc42p effector pathway in the recruitment of the septins to a discrete site in cell cortex	
38	Grote	Prm1 prevents contact-dependent lysis of yeast mating pairs	
39	KONO	G ₁ /S cyclin-dependent kinase regulates small GTPase Rho1p through Tus1p in <i>S. cerevisiae</i>	
40	Melloy	Following nuclear envelope fusion and fission in budding yeast	
41	Shen	The role of Prm3p in yeast nuclear fusion	

42	Johnson	Small molecules inhibit the signaling pathways regulating cell polarity in the pathogenic yeast <i>C. albicans</i>
43	Bao	Mechanism of MAP kinase signaling specificity—Towards an understanding how the rate of Fus3-dependent Tec1 inactivation is specified during pheromone
44	McCullagh	Understanding the sources and control of noise in eukaryotic signaling
45	Schindler	Phosphorylation of Ime2 regulates meiotic progression
46	Takahashi	Identification of new cortical interaction domains in Ste20
47	Tchou	Transmembrane domains of the osmosensor Sln1p regulate signaling
48	Wicky John	Zds1 functions in a mitotic signaling network and is a potential regulator of PP2A
49	Winters	Membrane binding and G β γ binding synergize to control Ste5 localization and
50	Zaman	Mapping the glucose signaling network in <i>S. cerevisiae</i>

Session 4 TRAFFICKING

WEDNESDAY 8/17/2005, 7:30 PM

T. Graham

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
51	Liu	Analysis of Drs2p C-terminal tail function in budding post-golgi vesicles and trafficking of Drs2p	12
52	Losev	Examining Golgi maturation in living yeast	12
53	Gao	A conserved GTPase-containing complex is required for intracellular sorting of the general amino acid permease in yeast	12
54	McNew	An intramolecular t-SNARE complex functions in vivo without the syntaxin N-terminal regulatory domain	12
55	Valdez-Taubas	Swf1-dependent palmitoylation of the snare Tlg1 prevents its ubiquitination and degradation	12
56	Kelley	The FYVE domain of Fab1 is required for Doa4 mediated deubiquitination	12
57	Botelho	Fab1 lipid kinase pathway essential for regulation of vacuole morphology	12
58	Helliwell	Pib2, a novel endosome and vacuolar membrane localized FYVE protein, mediates exocytosis of the general amino acide permease, Gap1	12
59	Abazeed	Vesicle transports of transmembrane proteins from the TGN to the late endosome/PVC requires recognition of cytosolic tail elements by the clathrin	12
60	Nothwehr	The role of the AP-1 complex in trafficking between the trans-Golgi network and endosomal system	12

Session 5 KINETOCHORES AND CHROMOSOMES

THURSDAY 8/18/2005, 9:00 AM

R. Rothstein

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
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61	Yamamoto	Bub1 and Mad2 regulate spindle attachment of chromosomes and anaphase onset at meiosis in fission yeast	12
62	Rachidi	Ipl1p protein kinase phosphorylates Mad3p to activate the tension checkpoint	12
63	Ohkuni	The role of the Mad2 synthetic lethality 3 (<i>DTS3</i>) gene in the kinetochore complex	12
64	Gardner	Reduced microtubule dynamics contribute to loss of tension at the kinetochore in budding yeast metaphase	12
65	Shimogawa	Mps1 phosphorylation of the kinetochore component Dam1 alters the metaphase kinetochore arrangement by changing the affinity of Dam1 for microtubules	12
66	Bansal	The oligomerization of SGT1 is important in kinetochore assembly function	12
67	Miranda	Structure of the yeast DASH complex, a kinetochore/microtubule interface	12
68	Kaplan	A novel role for the CBF3 kinetochore-scaffold complex in regulating septin dynamics and cytokinesis	12
69	Widlund	The domains and regulation of the chromosomal passenger protein, Bir1p	12
70	Vas	In vivo characterization of chromosome condensation in budding yeast	12
71	Guacci	Budding yeast Pds5 is a regulator of the maintenance of sister chromatid cohesion	12

Session 6 POSTER SESSION II

THURSDAY 8/18/2005, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
72	Ballew	Yeast genomics in the classroom—Using the yeast deletion collection to study environmental toxins and food additives	
73	Bharucha	Large-scale application of single cell fluorescence microscopy in the study of filamentous growth	
74	Brauer	Mapping complex traits via polymorphism cosegregation	
75	DeLuca	Molecular dissection of roles of <i>S. cerevisiae</i> Spt4p in kinetochore structure/function, transcription and gene silencing	
76	Engel	Increasing refinement of the <i>S. cerevisiae</i> genome annotation	
77	Kulkarni	Regulating homologous recombination in response to spontaneous DNA damage—Effects of Rad51 overexpression in <i>srs2Δ</i> cells	
78	Li	Mapping genetic networks with temperature sensitive conditional alleles of yeast essential genes	
79	Nash	Full-text literature search with Textpresso at SGD	
80	Ryan	Comprehensive analysis of yeast filamentous growth	
81	Skrzypek	SGD Genome Snapshot summarizes the current knowledge of the yeast genome	
82	Preston	Exploration of gene function and identification of kinase targets by systematic analysis of gene overexpression phenotypes	

83	Yuen	Systematic genomic instability screens in yeast identify candidate cancer genes
84	Alcazar-Roman	Defining the role for inositol hexakisphosphate (IP ₆) in nuclear transport
85	Collette	Characterization of clathrin heavy chain (CHC1) terminal domain mutants
86	Duncan	Novel chemical inhibitors of membrane traffic identified by compound synthetic lethal screening
87	Esaki	Characterizing the role of Sec16p in organizing discrete transitional ER sites
88	Frederick	Components of the novel Gem1p mitochondrial morphology pathway
89	Friesen	Genetic and biochemical interactions with <i>Rvs161</i> and <i>Rvs167</i>
90	Galan	Irs4p and Tax4p—Two gregarious EH proteins
91	Titorenko	An intraperoxisomal signaling cascade drives peroxisome division by promoting the stepwise remodeling of the membrane bilayer
92	Kawamata	Identification and analyses of a novel autophagy gene, <i>Atg29</i>
93	Kim	Intracellular trafficking and ubiquitination of Arn1p, the ferrichrome transporter in <i>S. cerevisiae</i>
94	Kuvichkin	Complexes—DNA-liposome-multivalent metal cations and nuclear pores assembly
95	Levi	Characterization of the Golgi matrix proteins Grh1p and Uso1p in <i>P. pastoris</i>
96	Klemm	A genome-wide visual screen for sorting mutants in yeast biosynthetic pathways
97	Sistla	Anatomy of a nucleoporin and its role in retrotransposition in the fission yeast
98	Xiao	Domain analysis of Swa2p/auxilin, a co-chaperone with Hsc70 in regulating clathrin dynamics

Session 7 GENOMES AND GENOMICS

THURSDAY 8/18/2005, 7:30 PM

V. Guacci

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
99	Clarke	A novel topoisomerase II-dependent mitotic checkpoint in budding yeast is required for genome stability but acts independently of Pds1/securin	12
100	Futcher	Non-homologous end joining is an important repair pathway in G1 haploid yeast, and non-randomly religates cognate ends	12
101	Houston	Physical and genetic analysis of mating type switching preference	12
102	Rothstein	Genetic screening of the yeast gene disruption library by expressing a mutant Top1 that mimics camptothecin	12
103	Storchova	Functional genomic analysis reveals highly specific defects in the maintenance of genome stability in polyploid yeast	12
104	Boone	Mapping genetic networks with temperature sensitive conditional alleles of yeast essential genes	12

105	Basrai	Functional genomics of genes with small open reading frames (sORFs) in <i>S. cerevisiae</i>	12
106	Sherlock	Exploring genome plasticity and adaptive evolution in natural and <i>de novo</i> laboratory hybrid yeast species	12
107	Dunham	Genomic analysis of experimental evolution in yeast	12

Session 8 ACTIN AND POLARITY

FRIDAY 8/19/2005, 9:00 AM

L. Pon			
#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
108	Moseley	Differential activities and regulation of <i>s. cerevisiae</i> formins Bni1 and Bnr1 by Bud6	12
109	Farah	Actin's cysteine residues are oxidative sensors that can regulate apoptosis in yeast	12
110	Huckaba	Yeast as a model for retrograde flow—Actin cable movement is driven by actin assembly and tropomyosin-regulated type II myosin force generation	12
111	Pashkova	Structure and functional analysis of the myosin V cargo-binding domain	12
112	Kaufmann	A homolog of <i>Hof1</i> is essential for actin ring formation during septation in <i>A. goddypii</i>	12
113	Nishihama	Mechanisms of septin-dependent, actomyosin ring-independent cytokinesis in <i>S. cerevisiae</i>	12
114	Johnson	Bimolecular fluorescence complementation between the Cdc42p GTPase and the Rdi1p RhoGDI at the plasma membrane	12
115	Herbert	The exportin Crm1p is essential for the daughter cell specific nuclear localization of the transcription factor Ace2p	12
116	Kurischko	A role for the <i>S. cerevisiae</i> RAM signaling network in cell integrity	12
117	Erdman	A novel mating-specific adhesin interaction mediated by conserved WCPL and CX ₄ C domains within the Aga1 and Fig2 proteins	12

Session 9 POSTER SESSION III

FRIDAY 8/19/2005, 2:00 PM

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
118	Guacci	Topoisomerase II suppresses the temperature sensitivity of <i>S. cerevisiae</i> Pds5 mutants but not the defect in sister chromatid cohesion	
119	Ghosh	The partitioning locus of yeast 2 micron plasmid harbors the CENP-A homolog	
120	Knockleby	Ame1 is required for repair of defective microtubule attachments	
121	Sheu	Control of eukaryotic DNA replication through hyperphosphorylation of Mcm4	
122	Simons	Structural dissection of the kinetochore protein Ndc10	
123	Vidanes	Checkpoint clamp loading—Characterizing the recognition of a double-strand break	

- 124 Warsi Analysis of roles for DNA topoisomerase II in pericentric chromatin dynamics during mitosis
- 125 Wong *Nat1* and *Fun30*, two host-encoded genes are required for the maintenance of the 2 μ plasmid in yeast *S. cerevisiae*
- 126 Bratman The fission yeast clasp homolog promotes stability of interphase microtubules
- 127 Cuschieri γ -tubulin functions in Kar9-dependent microtubule organization in yeast
- 128 DuPage Dissecting the role of Bud6/Aip3 in polarized cell growth
- 129 Feijao Role of phosphorylation in regulating Tip1p and Mal3p, the fission yeast CLIP-170 and EB1 homologs
- 130 Haynes Role of binding activity of Abp1 SH3 domain in regulation of actin cytoskeleton
- 131 Hendries A genetic interaction map for actin binding proteins and actin surface in *S. cerevisiae*
- 132 Huisman The role of Clb5p in spindle morphogenesis in *S. cerevisiae*
- 133 Park The role of budding yeast polo kinase, Cdc5, in regulating microtubule dynamics
- 134 Berens Inorganic pyrophosphatase Ipp1p is the essential target of the fluoride ion
- 135 Brooks Mechanisms of SDS hypersensitivity in tryptophan biosynthesis mutants
- 136 Chen Evolution of the prion properties of the Sup35 prion domain within the genera *Saccharomyces*
- 137 Michels *SNF1* is required at a post-transcriptional level for the expression of Mal61 maltose permease protein
- 138 Cronin Characterization of the transport substrate of the P-type ATPase *COD1/SPF1*
- 139 Titorenko The remodeling of metabolic pathways and interorganellar communications during chronological aging of calorie-restricted yeast cells
- 140 Kadnar How do prions appear and propagate—Elucidating the mechanisms of prion maintenance and heterologous prion seeding
- 141 Kelly Novel mutations in cytochrome b (*Cob1*) confirm the mode of action of the antifungal agent ilicicolin H
- 142 Krysan Accelerated recovery from α -factor arrest in a *S. cerevisiae* mutant with cell wall defects
- 143 Liberatore Exploring the function of the *WTM* genes in *S. cerevisiae*
- 144 Potenski Lsm4, a component of both mRNA splicing and degradation machinery, displays prion-like properties in vivo
- 145 Philpott The HUF family of essential genes involved in outer chain mannosylation and Heme uptake in *S. cerevisiae* and *C. albicans*
- 146 Freimoser Accumulation and function of inorganic polyphosphate in *S. cerevisiae*

Session 10 ORGANELLE BIOGENESIS

FRIDAY 8/19/2005, 7:30 PM

T. Fox

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
147	Cohen-Fix	Distinct domains of the budding yeast nuclear membrane—The nucleolus, but not the rest of the nucleus, expands in response to membrane proliferation	12
148	Sevier	Regulation of cellular disulfide bond formation	12
149	Montegna	Analysis of the role of Sec16 in transitional ER organization in <i>P. pastoris</i>	12
150	Thorner	The phosphatidylinositol 4-kinase isoform, Pik1, has essential roles both at the Golgi and in the nucleus in budding yeast (<i>S. cerevisiae</i>)	12
151	Connolly	Functional analysis of <i>Gcs1p</i> and its relationship with Spo14p in sporulation	12
152	Peng	Regulations of Vac17p coordinates vacuole inheritance with the cell cycle	12
153	Pon	Mitochondrial inheritance in <i>S. cerevisiae</i> is required for cytokinesis and mitotic exit	12
154	Neutzner	Instability of the mitofusion Fzo1 regulates mitochondrial morphology	12
155	Fiumera	Mss2p interacts with the C-tail domain of the mitochondrially coded Cox2p, and is required for C-tail translocation	12
156	Titorenko	Molecular mechanism of peroxisome fusion	12

Session 11 PHYSIOLOGY

SATURDAY 8/20/2005, 9:00 AM

J. Thorner

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
157	Schmidt	Mutational analysis of the Ras converting enzyme reveals a requirement for glutamate and histidine residues	12
158	Zhang	Two kinds of death are regulated by distinct Ca ²⁺ influx systems responding to pheromone in <i>S. cerevisiae</i>	12
159	Amerik	Regulation of deubiquitination in yeast	12
160	Richter	Multiple domains of Doa4 are required for function at the multivesicular body	12
161	Wolf	Ubiquitin-proteasome triggered catabolite degradation of fructose-1,6-bisphosphatase—Proteins involved and mechanism	12
162	Petrova	Structure and function of Mox4 in the anaerobic gene regulation in yeast	12
163	Calvert	Regulation of nucleosomal assembly protein (Nap1) by phosphorylation	12
164	Leung	Air proteins may link quality control mechanisms for different classes of RNAs	12
165	Maeda	Constitutive activation of the pH-responsive Rim101p pathway in mutants defective in late components of the MVB/ESCRT pathway	12
166	Heessen	Novel concepts in the maintenance of transcription factor latency	12

Session 12 MEMBRANES AND MORPHOGENESIS

SATURDAY 8/20/2005, 2:00 PM

J. Berman

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
167	Schoenfish	The vacuolar DHHC-cysteine rich domain protein Pfa3p is a protein acyltransferase for Vac8p	12
168	Guo	Parallel targeting of the exocyst components for polarized exocytosis	12
169	Wu	Specificity of Rho3 and Cdc42 in regulating exocytosis and cell polarity	12
170	Nakashima	Role of Bud7p in the trafficking of bud-site-selection marker proteins	12
171	Knechtle	AgBOI1 and AgRHO3 signal in a common pathway for sustained polar growth in the filamentous ascomycete <i>A. gossypii</i>	12
172	Rose	Dynamic localization of Fus2-GFP in mating cells	12
173	Grote	<i>Fus1</i> regulates fusion pore permeance in mating yeast	12
174	Toret	System-wide live-cell imaging reveals a modular design for the endocytic machinery	12
175	Botcher	Sjl2p is associated with early endocytic structures, that clump upon interference with actin dynamics	12

Session 13 CELL CYCLE AND CHECKPOINTS

SUNDAY 8/21/2005, 9:00 AM

O. Cohen-Fix

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
176	Lew	Swe1 nucleocytoplasmic shuttling ensures updated communication between bud status and mitosis	12
177	Kellogg	Cdk1-dependent regulation of the mitotic inhibitor Wee1	12
178	Jin	The nucleolar protein Dnt1 is a novel negative regulator of septation initiation network in fission yeast	12
179	Szu Shien	Plo1p regulates M/G1-specific transcription in <i>S. pombe</i>	12
180	Rosebrock	The cell-cycle regulated genes of <i>S. pombe</i>	12
181	Breeden	New microarray data through the cell cycle identifies Hcm1 is an S phase-specific transcription factor regulating genes involved in chromosome segregation	12
182	Bonilla	Activation of the DNA damage checkpoint by colocalization of sensors	12
183	Honey	Loading of the Cdc6 onto chromatin is controlled directly by CDK phosphorylation	12
184	Koepp	A cell cycle-regulated F-box protein linked to cell cycle control and mRNA export	12
185	Solomon	Ordered assembly of an APC-Cdh1-substrate complex is stimulated by substrate binding and engagement of a D-box	12