

Stanford



John R. Pringle

Professor of Genetics

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Genetics
- Member, Bio-X

PROFESSIONAL EDUCATION

- Ph.D., Harvard University , Biology (1971)
- A.B., Harvard University , Mathematics (1963)

LINKS

- Pringle Lab website: <http://pringlelab.stanford.edu/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Much of the research in the Pringle laboratory exploits the power of yeast as an experimentally tractable model eukaryote to investigate fundamental problems in cell and developmental biology such as the mechanisms of cell polarization and cytokinesis. In regards to cell polarization, the major current foci are the roles of cortical marker proteins and of a GTPase-based signal-transduction cascade in the selection of the polarization axes (as defined by the bud sites). Interestingly, the marker proteins appear to be delivered to polarized sites in the cell surface by an unconventional arm of the secretory pathway. In regards to cytokinesis, the major current foci are the roles of the septin proteins and the interactions among the actomyosin contractile ring, the enzymes of extracellular-matrix (cell-wall) synthesis, and proteins that appear to be involved in plasma-membrane reorganization. Our working hypothesis is that the conserved core mechanism is the rearrangements of the membrane during cleavage-furrow formation and that the actomyosin ring and extracellular matrix play accessory roles.

In a departure from our many years of yeast work, a major new project involves developing the small sea anemone *Aiptasia pallida* as a model system for study of the molecular and cellular biology of the dinoflagellate-cnidarian symbiosis, which is critical for the survival of most reef-building corals but still very poorly understood. Processes to be investigated include the recognition and signaling events involved in symbiosis establishment, the temporal and spatial coordination of symbiont and host cell cycles during symbiosis maintenance, and the signaling and cellular processes involved in symbiosis breakdown under stress. Currently much of our effort is directed at genomic analysis and method development that will underpin later studies.

Teaching

COURSES

2023-24

- Advanced Genetics: GENE 205 (Win)

- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)
- Frontiers in Biological Research: BIOC 215, DBIO 215, GENE 215 (Aut, Win, Spr)
- Genetics and Developmental Biology Training Camp: DBIO 200, GENE 200 (Aut)

2022-23

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)
- Frontiers in Biological Research: BIOC 215, DBIO 215, GENE 215 (Aut, Win, Spr)
- Genetics and Developmental Biology Training Camp: DBIO 200, GENE 200 (Aut)

2021-22

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)
- Frontiers in Biological Research: BIOC 215, DBIO 215, GENE 215 (Aut, Win, Spr)
- Genetics and Developmental Biology Training Camp: DBIO 200, GENE 200 (Aut)

2020-21

- Advanced Genetics: GENE 205 (Win)
- Current Issues in Genetics: GENE 219 (Aut, Win, Spr, Sum)
- Frontiers in Biological Research: BIOC 215, DBIO 215, GENE 215 (Aut, Win, Spr)
- Genetics and Developmental Biology Training Camp: DBIO 200, GENE 200 (Aut)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Richard Grawelle, Lorraine Ling, Gabe Rosenfield

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Genetics (Phd Program)

Publications

PUBLICATIONS

- **Photosynthesis and other factors affecting the establishment and maintenance of cnidarian-dinoflagellate symbiosis.** *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*
Tran, C., Rosenfield, G. R., Cleves, P. A., Krediet, C. J., Paul, M. R., Clowez, S., Grossman, A. R., Pringle, J. R.
2024; 379 (1901): 20230079
- **Role of the bicarbonate transporter SLC4# in stony-coral skeleton formation and evolution.** *Proceedings of the National Academy of Sciences of the United States of America*
Tinoco, A. I., Mitchison-Field, L. M., Bradford, J., Renicke, C., Perrin, D., Bay, L. K., Pringle, J. R., Cleves, P. A.
2023; 120 (24): e2216144120
- **Molecular insights into the Darwin paradox of coral reefs from the sea anemone *Aiptasia*.** *Science advances*
Cui, G., Konciute, M. K., Ling, L., Esau, L., Raina, J. B., Han, B., Salazar, O. R., Presnell, J. S., Rädecker, N., Zhong, H., Menzies, J., Cleves, P. A., Liew, et al
2023; 9 (11): eadf7108
- **Conversion of oxybenzone sunscreen to phototoxic glucoside conjugates by sea anemones and corals.** *Science (New York, N.Y.)*
Vuckovic, D., Tinoco, A. I., Ling, L., Renicke, C., Pringle, J. R., Mitch, W. A.
2022; 376 (6593): 644-648

- **Reduced thermal tolerance in a coral carrying CRISPR-induced mutations in the gene for a heat-shock transcription factor.** *Proceedings of the National Academy of Sciences of the United States of America*
Cleves, P. A., Tinoco, A. I., Bradford, J., Perrin, D., Bay, L. K., Pringle, J. R.
2020
- **Insights into coral bleaching under heat stress from analysis of gene expression in a sea anemone model system.** *Proceedings of the National Academy of Sciences of the United States of America*
Cleves, P. A., Krediet, C. J., Lehnert, E. M., Onishi, M., Pringle, J. R.
2020
- **Impact of menthol on growth and photosynthetic function of *Breviolum minutum* (Dinoflagellata, Dinophyceae, Symbiodiniaceae) and interactions with its *Aiptasia* host.** *Journal of phycolgy*
Clowez, S., Renicke, C., Pringle, J. R., Grossman, A. R.
2020
- **Cleavage-furrow formation without F-actin in *Chlamydomonas*.** *Proceedings of the National Academy of Sciences of the United States of America*
Onishi, M., Umen, J. G., Cross, F. R., Pringle, J. R.
2020
- **Symbiont population control by host-symbiont metabolic interaction in Symbiodiniaceae-cnidarian associations.** *Nature communications*
Xiang, T. n., Lehnert, E. n., Jinkerson, R. E., Clowez, S. n., Kim, R. G., DeNofrio, J. C., Pringle, J. R., Grossman, A. R.
2020; 11 (1): 108
- **F-actin homeostasis through transcriptional regulation and proteasome-mediated proteolysis.** *Proceedings of the National Academy of Sciences of the United States of America*
Onishi, M., Pecani, K., Jones, T. 4., Pringle, J. R., Cross, F. R.
2018
- **CRISPR/Cas9-mediated genome editing in a reef-building coral** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Clevesa, P. A., Strader, M. E., Bay, L. K., Pringle, J. R., Matz, M. V.
2018; 115 (20): 5235–40
- **Role of the Hofl-Cyk3 interaction in cleavage-furrow ingression and primary-septum formation during yeast cytokinesis** *MOLECULAR BIOLOGY OF THE CELL*
Wang, M., Nishihama, R., Onishi, M., Pringle, J. R.
2018; 29 (5): 597–609
- **Glucose-Induced Trophic Shift in an Endosymbiont Dinoflagellate with Physiological and Molecular Consequences** *PLANT PHYSIOLOGY*
Xiang, T., Jinkerson, R. E., Clowez, S., Tran, C., Krediet, C. J., Onishi, M., Cleves, P. A., Pringle, J. R., Grossman, A. R.
2018; 176 (2): 1793–1807
- **Evidence for miRNA-mediated modulation of the host transcriptome in cnidarian-dinoflagellate symbiosis** *MOLECULAR ECOLOGY*
Baumgarten, S., Cziesielski, M. J., Thomas, L., Michell, C. T., Esherick, L. Y., Pringle, J. R., Aranda, M., Voolstra, C. R.
2018; 27 (2): 403–18
- **Robust Transgene Expression from Bicistronic mRNA in the Green Alga *Chlamydomonas reinhardtii*.** *G3 (Bethesda, Md.)*
Onishi, M., Pringle, J. R.
2016
- **Relative Contributions of Various Cellular Mechanisms to Loss of Algae during Cnidarian Bleaching** *PLOS ONE*
Bieri, T., Onishi, M., Xiang, T., Grossman, A. R., Pringle, J. R.
2016; 11 (4)
- **Evidence That an Unconventional Actin Can Provide Essential F-Actin Function and That a Surveillance System Monitors F-Actin Integrity in *Chlamydomonas*.** *Genetics*
Onishi, M., Pringle, J. R., Cross, F. R.
2016; 202 (3): 977-996
- **Analysis of Rho-GTPase Activity During Budding Yeast Cytokinesis.** *Methods in molecular biology (Clifton, N.J.)*
Onishi, M., Pringle, J. R.

2016; 1369: 205-218

● **The nonopisthokont septins: How many there are, how little we know about them, and how we might learn more.** *Methods in cell biology*

Onishi, M., Pringle, J. R.

2016; 136: 1-19

● **Forty-five years of cell-cycle genetics** *MOLECULAR BIOLOGY OF THE CELL*

Reid, B. J., Culotti, J. G., Nash, R. S., Pringle, J. R.

2015; 26 (24): 4307-4312

● **The genome of Aiptasia, a sea anemone model for coral symbiosis** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Baumgarten, S., Simakov, O., Esheric, L. Y., Liew, Y. J., Lehnert, E. M., Michell, C. T., Li, Y., Hambleton, E. A., Guse, A., Oates, M. E., Gough, J., Weis, V. M., Aranda, et al

2015; 112 (38): 11893-11898

● **Cytokinesis breaks dicentric chromosomes preferentially at pericentromeric regions and telomere fusions.** *Genes & development*

Lopez, V., Barinova, N., Onishi, M., Pobiega, S., Pringle, J. R., Dubrana, K., Marcand, S.

2015; 29 (3): 322-336

● **Rapid, Precise, and Accurate Counts of Symbiodinium Cells Using the Guava Flow Cytometer, and a Comparison to Other Methods.** *PloS one*

Krediet, C. J., DeNofrio, J. C., Caruso, C., Burriesci, M. S., Cella, K., Pringle, J. R.

2015; 10 (8)

● **Regulation of spindle pole body assembly and cytokinesis by the centrin-binding protein Sfi1 in fission yeast** *MOLECULAR BIOLOGY OF THE CELL*

Lee, I., Wang, N., Hu, W., Schott, K., Baehler, J., Giddings, T. H., Pringle, J. R., Du, L., Wu, J.

2014; 25 (18): 2735-2749

● **Regulation of spindle pole body assembly and cytokinesis by the centrin-binding protein Sfi1 in fission yeast.** *Molecular biology of the cell*

Lee, I., Wang, N., Hu, W., Schott, K., Bähler, J., Giddings, T. H., Pringle, J. R., Du, L., Wu, J.

2014; 25 (18): 2735-2749

● **Actin Is Required for IFT Regulation in Chlamydomonas reinhardtii** *CURRENT BIOLOGY*

Avasthi, P., Onishi, M., Karpiaik, J., Yamamoto, R., Mackinder, L., Jonikas, M. C., Sale, W. S., Shoichet, B., Pringle, J. R., Marshall, W. F.

2014; 24 (17): 2025-2032

● **Actin is required for IFT regulation in Chlamydomonas reinhardtii.** *Current biology*

Avasthi, P., Onishi, M., Karpiaik, J., Yamamoto, R., Mackinder, L., Jonikas, M. C., Sale, W. S., Shoichet, B., Pringle, J. R., Marshall, W. F.

2014; 24 (17): 2025-2032

● **Similar specificities of symbiont uptake by adults and larvae in an anemone model system for coral biology** *JOURNAL OF EXPERIMENTAL BIOLOGY*

Hambleton, E. A., Guse, A., Pringle, J. R.

2014; 217 (9): 1613-1619

● **Extensive differences in gene expression between symbiotic and aposymbiotic cnidarians.** *G3 (Bethesda, Md.)*

Lehnert, E. M., Mouchka, M. E., Burriesci, M. S., Gallo, N. D., Schwarz, J. A., Pringle, J. R.

2014; 4 (2): 277-295

● **An enduring enthusiasm for academic science, but with concerns** *MOLECULAR BIOLOGY OF THE CELL*

Pringle, J. R.

2013; 24 (21): 3281-3284

● **Coral bleaching independent of photosynthetic activity.** *Current biology*

Tolleter, D., Seneca, F. O., DeNofrio, J. C., Krediet, C. J., Palumbi, S. R., Pringle, J. R., Grossman, A. R.

2013; 23 (18): 1782-1786

● **Distinct roles of Rho1, Cdc42, and Cyk3 in septum formation and abscission during yeast cytokinesis** *JOURNAL OF CELL BIOLOGY*

Onishi, M., Ko, N., Nishihama, R., Pringle, J. R.

2013; 202 (2): 311-329

● **Isolation of clonal axenic strains of the symbiotic dinoflagellate Symbiodinium and their growth and host specificity** *JOURNAL OF PHYCOLOGY*

- Xiang, T., Hambleton, E. A., DeNofrio, J. C., Pringle, J. R., Grossman, A. R.
2013; 49 (3): 447-458
- **Isolation of clonal axenic strains of the symbiotic dinoflagellate *Symbiodinium* and their growth and host specificity(1).** *Journal of phycology*
Xiang, T., Hambleton, E. A., DeNofrio, J. C., Pringle, J. R., Grossman, A. R.
2013; 49 (3): 447-58
 - **Identification of symbiotic-specific genes reveals a role for host immunity in a cnidarian-dinoflagellate mutualism** *Annual Meeting of the Society-for-Integrative-and-Comparative-Biology (SICB)*
Mouchka, M. E., Lehnert, E. M., Burriesci, M. S., Schwarz, J., Pringle, J. R.
OXFORD UNIV PRESS INC.2013: E150–E150
 - **Role of endocytosis in localization and maintenance of the spatial markers for bud-site selection in yeast.** *PloS one*
Tuo, S., Nakashima, K., Pringle, J. R.
2013; 8 (9)
 - **Apparent Defect in Yeast Bud-Site Selection Due to a Specific Failure to Splice the Pre-mRNA of a Regulator of Cell-Type-Specific Transcription** *PLOS ONE*
Tuo, S., Nakashima, K., Pringle, J. R.
2012; 7 (10)
 - **Evidence that glucose is the major transferred metabolite in dinoflagellate-cnidarian symbiosis** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Burriesci, M. S., Raab, T. K., Pringle, J. R.
2012; 215 (19): 3467-3477
 - **Fission yeast Cyk3p is a transglutaminase-like protein that participates in cytokinesis and cell morphogenesis** *MOLECULAR BIOLOGY OF THE CELL*
Pollard, L. W., Onishi, M., Pringle, J. R., Lord, M.
2012; 23 (13): 2433-2444
 - **Developing the anemone *Aiptasia* as a tractable model for cnidarian-dinoflagellate symbiosis: the transcriptome of aposymbiotic *A. pallida*** *BMC GENOMICS*
Lehnert, E. M., Burriesci, M. S., Pringle, J. R.
2012; 13
 - **Fulcrum: condensing redundant reads from high-throughput sequencing studies** *BIOINFORMATICS*
Burriesci, M. S., Lehnert, E. M., Pringle, J. R.
2012; 28 (10): 1324-1327
 - **Evidence that a septin diffusion barrier is dispensable for cytokinesis in budding yeast** *BIOLOGICAL CHEMISTRY*
Wloka, C., Nishihama, R., Onishi, M., Oh, Y., Hanna, J., Pringle, J. R., Krauss, M., Bi, E.
2011; 392 (8-9): 813-829
 - **New insights into the phylogenetic distribution and evolutionary origins of the septins** *BIOLOGICAL CHEMISTRY*
Nishihama, R., Onishi, M., Pringle, J. R.
2011; 392 (8-9): 681-687
 - **Cooperation Between the Septins and the Actomyosin Ring and Role of a Cell-Integrity Pathway During Cell Division in Fission Yeast** *GENETICS*
Wu, J., Ye, Y., Wang, N., Pollard, T. D., Pringle, J. R.
2010; 186 (3): 897-U232
 - **Role of Septins in the Orientation of Forespore Membrane Extension during Sporulation in Fission Yeast** *MOLECULAR AND CELLULAR BIOLOGY*
Onishi, M., Koga, T., Hirata, A., Nakamura, T., Asakawa, H., Shimoda, C., Baehler, J., Wu, J., Takegawa, K., Tachikawa, H., Pringle, J. R., Fukui, Y.
2010; 30 (8): 2057-2074
 - **Role of Inn1 and its interactions with Hof1 and Cyk3 in promoting cleavage furrow and septum formation in *S. cerevisiae*** *JOURNAL OF CELL BIOLOGY*
Nishihama, R., Schreiter, J. H., Onishi, M., Vallen, E. A., Hanna, J., Moravcevic, K., Lippincott, M. F., Han, H., Lemmon, M. A., Pringle, J. R., Bi, E.
2009; 185 (6): 995-1012
 - **Generation and analysis of transcriptomic resources for a model system on the rise: the sea anemone *Aiptasia pallida* and its dinoflagellate endosymbiont** *BMC GENOMICS*
Sunagawa, S., Wilson, E. C., Thaler, M., Smith, M. L., Caruso, C., Pringle, J. R., Weis, V. M., Medina, M., Schwarz, J. A.

2009; 10

- **Development of an Aiptasia pallida Cell-culture System to Study Cnidarian-Dinoflagellate Symbiosis.**
Denofrio, J., Pringle, J.
SPRINGER.2009: S48–S48
- **The Anaphase-promoting Complex Promotes Actomyosin-Ring Disassembly during Cytokinesis in Yeast** *MOLECULAR BIOLOGY OF THE CELL*
Tully, G. H., Nishihama, R., Pringle, J. R., Morgan, D. O.
2009; 20 (4): 1201-1212
- **A role for very-long-chain fatty acids in furrow ingression during cytokinesis in Drosophila spermatocytes** *CURRENT BIOLOGY*
Szafer-Glusman, E., Giansanti, M. G., Nishihama, R., Bolival, B., Pringle, J., Gatti, M., Fuller, M. T.
2008; 18 (18): 1426-1431
- **Cell biology in model systems as the key to understanding corals** *TRENDS IN ECOLOGY & EVOLUTION*
Weis, V. M., Davy, S. K., Hoegh-Guldberg, O., Rodriguez-Lanetty, M., Pringle, J. R.
2008; 23 (7): 369-376
- **Control of 5-FOA and 5-FU resistance by Saccharomyces cerevisiae YJL055W YEAST**
Ko, N., Nishihama, R., Pringle, J. R.
2008; 25 (2): 155-160
- **Origins and development of the septin field.** In "The Septins" (P.A. Hall, S.E.H. Russell & J.R. Pringle, eds.). Wiley-Blackwell.
Pringle JR
2008: 7-34
- **Identification of yeast IQGAP (Iqq1p) as an anaphase-promoting-complex substrate and its role in actomyosin-ring-independent cytokinesis** *MOLECULAR BIOLOGY OF THE CELL*
Ko, N., Nishihama, R., Tully, G. H., Ostapenko, D., Solomon, M. J., Morgan, D. O., Pringle, J. R.
2007; 18 (12): 5139-5153
- **Role of cell cycle-regulated expression in the localized incorporation of cell wall proteins in yeast** *MOLECULAR BIOLOGY OF THE CELL*
Smits, G. J., Schenkman, L. R., Brul, S., Pringle, J. R., Klis, F. M.
2006; 17 (7): 3267-3280
- **Role of a Cdc42p effector pathway in recruitment of the yeast septins to the presumptive bud site** *MOLECULAR BIOLOGY OF THE CELL*
Iwase, M., Luo, J. Y., Nagaraj, S., Longtine, M., Kim, H. B., Haarer, B. K., Caruso, C., Tong, Z. T., Pringle, J. R., Bi, E. F.
2006; 17 (3): 1110-1125
- **Cytoskeleton and morphogenesis.** In "Landmark Papers in Yeast Biology" (P. Linder, M. Hall & D. Shore, eds.). Cold Spring Harbor Laboratory Press.
Pringle JR
2006: 211-241
- **Interactions among Rax1p, Rax2p, Bud8p, and Bud9p in marking cortical sites for bipolar bud-site selection in yeast.** *Molecular biology of the cell*
Kang, P. J., Angerman, E., Nakashima, K., Pringle, J. R., Park, H.
2004; 15 (11): 5145-5157
- **Interactions among Rax1p, Rax2p, marking cortical sites for bipolar yeast** *MOLECULAR BIOLOGY OF THE CELL*
Kang, P. J., Angerman, E., Nakashima, K., Pringle, J. R., Park, H. O.
2004; 15 (11): 5145-5157
- **The role of Cdc42p GTPase-activating proteins in assembly of the septin ring in yeast** *MOLECULAR BIOLOGY OF THE CELL*
Caviston, J. P., Longtine, M., Pringle, J. R., Bi, E.
2003; 14 (10): 4051-4066
- **Mammalian septins nomenclature** *MOLECULAR BIOLOGY OF THE CELL*
Macara, I. G., Baldarelli, R., Field, C. M., Glotzer, M., Hayashi, Y., Hsu, S. C., Kennedy, M. B., Kinoshita, M., Longtine, M., Low, C., Maltais, L. J., McKenzie, L., Mitchison, et al
2002; 13 (12): 4111-4113

- **Bni5p, a septin-interacting protein, is required for normal septin function and cytokinesis in *Saccharomyces cerevisiae* MOLECULAR AND CELLULAR BIOLOGY**
Lee, P. R., Song, S., Ro, H. S., Park, C. J., Lippincott, J., Li, R., Pringle, J. R., De Virgilio, C., Longtine, M. S., Lee, K. S.
2002; 22 (19): 6906-6920
- **Identification of septin-interacting proteins and characterization of the Smt3/SUMO-conjugation system in *Drosophila* JOURNAL OF CELL SCIENCE**
Shih, H. P., Hales, K. G., Pringle, J. R., Peifer, M.
2002; 115 (6): 1259-1271
- **The role of cell cycle-regulated expression in the localization of spatial landmark proteins in yeast JOURNAL OF CELL BIOLOGY**
Schenkman, L. R., Caruso, C., Page, N., Pringle, J. R.
2002; 156 (5): 829-841
- **The septin cortex at the yeast mother-bud neck CURRENT OPINION IN MICROBIOLOGY**
Gladfelter, A. S., Pringle, J. R., Lew, D. J.
2001; 4 (6): 681-689
- **A protein interaction map for cell polarity development JOURNAL OF CELL BIOLOGY**
Drees, B. L., Sundin, B., Brazeau, E., Caviston, J. P., Chen, G. C., Guo, W., Kozminski, K. G., Lau, M. W., Moskow, J. J., Tong, A., Schenkman, L. R., McKenzie, A., Brennwald, et al
2001; 154 (3): 549-571
- **Bud8p and Bud9p, proteins that may mark the sites for bipolar budding in yeast MOLECULAR BIOLOGY OF THE CELL**
Harkins, H. A., Page, N., Schenkman, L. R., De Virgilio, C., Shaw, S., Bussey, H., Pringle, J. R.
2001; 12 (8): 2497-2518
- **Roles of a fimbrin and an alpha-actinin-like protein in fission yeast cell polarization and cytokinesis MOLECULAR BIOLOGY OF THE CELL**
Wu, J. Q., Bahler, J., Pringle, J. R.
2001; 12 (4): 1061-1077
- **Evidence for functional differentiation among *Drosophila* septins in cytokinesis and cellularization MOLECULAR BIOLOGY OF THE CELL**
Adam, J. C., Pringle, J. R., Peifer, M.
2000; 11 (9): 3123-3135
- **Septin-dependent assembly of a cell cycle-regulatory module in *Saccharomyces cerevisiae* MOLECULAR AND CELLULAR BIOLOGY**
Longtine, M. S., Theesfeld, C. L., McMillan, J. N., Weaver, E., Pringle, J. R., Lew, D. J.
2000; 20 (11): 4049-4061
- **Identification of novel, evolutionarily conserved Cdc42p-interacting proteins and of redundant pathways linking Cdc24p and Cdc42p to actin polarization in yeast MOLECULAR BIOLOGY OF THE CELL**
Bi, E. F., Chiavetta, J. B., Chen, H., Chen, G. C., Chan, C. S., Pringle, J. R.
2000; 11 (2): 773-793
- **Cytokinesis: an emerging unified theory for eukaryotes? CURRENT OPINION IN CELL BIOLOGY**
Hales, K. G., Bi, E., Wu, J. Q., Adam, J. C., Yu, I. C., Pringle, J. R.
1999; 11 (6): 717-725
- **The morphogenesis checkpoint in *Saccharomyces cerevisiae*: Cell cycle control of Swe1p degradation by Hsl1p and Hsl7p MOLECULAR AND CELLULAR BIOLOGY**
McMillan, J. N., Longtine, M. S., Sia, R. A., Theesfeld, C. L., Bardes, E. S., Pringle, J. R., Lew, D. J.
1999; 19 (10): 6929-6939
- **Role of polo kinase and Mid1p in determining the site of cell division in fission yeast JOURNAL OF CELL BIOLOGY**
Bahler, J., Steever, A. B., Wheatley, S., Wang, Y. L., Pringle, J. R., Gould, K. L., McCollum, D.
1998; 143 (6): 1603-1616
- **Role of the yeast Gin4p protein kinase in septin assembly and the relationship between septin assembly and septin function JOURNAL OF CELL BIOLOGY**
Longtine, M. S., Fares, H., Pringle, J. R.
1998; 143 (3): 719-736

- **Polymerization of purified yeast septins: Evidence that organized filament arrays may not be required for septin function** *JOURNAL OF CELL BIOLOGY*
Frazier, J. A., Wong, M. L., Longtine, M. S., Pringle, J. R., Mann, M., Mitchison, T. J., Field, C.
1998; 143 (3): 737-749
- **Involvement of an actomyosin contractile ring in *Saccharomyces cerevisiae* cytokinesis** *JOURNAL OF CELL BIOLOGY*
Bi, E., Maddox, P., Lew, D. J., Salmon, E. D., McMillan, J. N., Yeh, E., Pringle, J. R.
1998; 142 (5): 1301-1312
- **Elevated expression of chitinase 1 and chitin synthesis in Myosin II-deficient *Saccharomyces cerevisiae*** *CELLULAR AND MOLECULAR BIOLOGY*
Rodriguez-Medina, J. R., Cruz, J. A., Robbins, P. W., Bi, E., Pringle, J. R.
1998; 44 (6): 919-925
- **Heterologous modules for efficient and versatile PCR-based gene targeting in *Schizosaccharomyces pombe*** *YEAST*
Bahler, J., Wu, J. Q., Longtine, M. S., Shah, N. G., McKenzie, A., Steever, A. B., Wach, A., Philippson, P., Pringle, J. R.
1998; 14 (10): 943-951
- **Additional modules for versatile and economical PCR-based gene deletion and modification in *Saccharomyces cerevisiae*** *YEAST*
Longtine, M. S., McKenzie, A., DeMarini, D. J., Shah, N. G., Wach, A., Brachat, A., Philippson, P., Pringle, J. R.
1998; 14 (10): 953-961
- **Pom1p, a fission yeast protein kinase that provides positional information for both polarized growth and cytokinesis** *GENES & DEVELOPMENT*
Bahler, J., Pringle, J. R.
1998; 12 (9): 1356-1370
- **A septin-based hierarchy of proteins required for localized deposition of chitin in the *Saccharomyces cerevisiae* cell wall** *JOURNAL OF CELL BIOLOGY*
DeMarini, D. J., Adams, A. E., Fares, H., DEVIRGILIO, C., Valle, G., Chuang, J. S., Pringle, J. R.
1997; 139 (1): 75-93
- **Two active states of the Ras-related Bud1/Rsr1 protein bind to different effectors to determine yeast cell polarity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Park, H. O., Bi, E. F., Pringle, J. R., Herskowitz, I.
1997; 94 (9): 4463-4468
- **Bni1p, a yeast formin linking Cdc42p and the actin cytoskeleton during polarized morphogenesis** *SCIENCE*
Evangelista, M., Blundell, K., Longtine, M. S., Chow, C. J., ADAMES, N., Pringle, J. R., Peter, M., Boone, C.
1997; 276 (5309): 118-122
- **Aip3p/Bud6p, a yeast actin-interacting protein that is involved in morphogenesis and the selection of bipolar budding sites** *MOLECULAR BIOLOGY OF THE CELL*
Amberg, D. C., Zahner, J. E., Mulholland, J. W., Pringle, J. R., Botstein, D.
1997; 8 (4): 729-753
- **Cdc53p acts in concert with cdc4p and cdc34p to control the G(1)-to-S-phase transition and identifies a conserved family of proteins** *MOLECULAR AND CELLULAR BIOLOGY*
Mathias, N., Johnson, S. L., Winey, M., Adams, A. E., Goetsch, L., Pringle, J. R., Byers, B., Goebel, M. G.
1996; 16 (12): 6634-6643
- **SPR28, a sixth member of the septin gene family in *Saccharomyces cerevisiae* that is expressed specifically in sporulating cells** *MICROBIOLOGY-SGM*
DEVIRGILIO, C., DeMarini, D. J., Pringle, J. R.
1996; 142: 2897-2905
- **ZDS1 and ZDS2, genes whose products may regulate Cdc42p in *Saccharomyces cerevisiae*** *MOLECULAR AND CELLULAR BIOLOGY*
Bi, E. F., Pringle, J. R.
1996; 16 (10): 5264-5275
- **Mutational analysis of the beta-subunit of yeast geranylgeranyl transferase I** *MOLECULAR AND GENERAL GENETICS*
Ohya, Y., Caplin, B. E., Qadota, H., TIBBETTS, M. F., Anraku, Y., Pringle, J. R., Marshall, M. S.
1996; 252 (1-2): 1-10
- **Identification of the bud emergence gene BEM4 and its interactions with Rho-type GTPases in *Saccharomyces cerevisiae*** *MOLECULAR AND CELLULAR BIOLOGY*

- Mack, D., Nishimura, K., Dennehey, B. K., ARBOGAST, T., Parkinson, J., TOHE, A., Pringle, J. R., Bender, A., Matsui, Y. 1996; 16 (8): 4387-4395
- **Genetic analysis of the bipolar pattern of bud site selection in the yeast *Saccharomyces cerevisiae*** *MOLECULAR AND CELLULAR BIOLOGY*
Zahner, J. E., Harkins, H. A., Pringle, J. R.
1996; 16 (4): 1857-1870
 - **Identification of a developmentally regulated septin and involvement of the septins in spore formation in *Saccharomyces cerevisiae*** *JOURNAL OF CELL BIOLOGY*
Fares, H., Goetsch, L., Pringle, J. R.
1996; 132 (3): 399-411
 - **The septins: Roles in cytokinesis and other processes** *CURRENT OPINION IN CELL BIOLOGY*
Longtine, M. S., DeMarini, D. J., Valencik, M. L., AlAwar, O. S., Fares, H., DEVIRGILIO, C., Pringle, J. R.
1996; 8 (1): 106-119
 - **MUTATION OF RGA1, WHICH ENCODES A PUTATIVE GTPASE-ACTIVATING PROTEIN FOR THE POLARITY-ESTABLISHMENT PROTEIN CDC42P, ACTIVATES THE PHEROMONE-RESPONSE PATHWAY IN THE YEAST SACCHAROMYCES-CEREVIAE** *GENES & DEVELOPMENT*
Stevenson, B. J., Ferguson, B., DEVIRGILIO, C., Bi, E., Pringle, J. R., Ammerer, G., Sprague, G. F.
1995; 9 (23): 2949-2963
 - **LOCALIZATION AND POSSIBLE FUNCTIONS OF DROSOPHILA SEPTINS** *MOLECULAR BIOLOGY OF THE CELL*
Fares, H., Peifer, M., Pringle, J. R.
1995; 6 (12): 1843-1859
 - **ROLE FOR THE RHO-FAMILY GTPASE CDC42 IN YEAST MATING-PHEROMONE SIGNAL PATHWAY** *NATURE*
Simon, M. N., DEVIRGILIO, C., Souza, B., Pringle, J. R., Abo, A., Reed, S. I.
1995; 376 (6542): 702-705
 - **STE20-LIKE PROTEIN-KINASES ARE REQUIRED FOR NORMAL LOCALIZATION OF CELL-GROWTH AND FOR CYTOKINESIS IN BUDDING YEAST** *GENES & DEVELOPMENT*
Cvrckova, F., DEVIRGILIO, C., Manser, E., Pringle, J. R., Nasmyth, K.
1995; 9 (15): 1817-1830
 - **ROLE OF BUD3P IN PRODUCING THE AXIAL BUDDING PATTERN OF YEAST** *JOURNAL OF CELL BIOLOGY*
Chant, J., Mischke, M., Mitchell, E., Herskowitz, I., Pringle, J. R.
1995; 129 (3): 767-778
 - **PATTERNS OF BUD-SITE SELECTION IN THE YEAST SACCHAROMYCES-CEREVIAE** *JOURNAL OF CELL BIOLOGY*
Chant, J., Pringle, J. R.
1995; 129 (3): 751-765
 - **Establishment of cell polarity in yeast** *Cold Spring Harbor Symposia on Quantitative Biology - Protein Kinetics: The Dynamics of Protein Trafficking and Stability*
Pringle, J. R., Bi, E., Harkins, H. A., Zahner, J. E., DEVIRGILIO, C., Chant, J., Corrado, K., Fares, H.
COLD SPRING HARBOR LAB PRESS, PUBLICATIONS DEPT. 1995: 729-744
 - **CHARACTERIZATION OF GLYCOGEN-DEFICIENT GLC MUTANTS OF SACCHAROMYCES-CEREVIAE** *GENETICS*
Cannon, J. F., Pringle, J. R., Fiechter, A., Khalil, M.
1994; 136 (2): 485-503
 - **SUPPRESSION OF YEAST GERANYLGERANYL TRANSFERASE-I DEFECT BY ALTERNATIVE PRENYLATION OF 2 TARGET GTPASES, RHO1P AND CDC42P** *MOLECULAR BIOLOGY OF THE CELL*
Ohya, Y., Qadota, H., Anraku, Y., Pringle, J. R., Botstein, D.
1993; 4 (10): 1017-1025
 - **MOLECULAR ANALYSIS OF SACCHAROMYCES-CEREVIAE CHROMOSOME-I - ON THE NUMBER OF GENES AND THE IDENTIFICATION OF ESSENTIAL GENES USING TEMPERATURE-SENSITIVE-LETHAL MUTATIONS** *JOURNAL OF MOLECULAR BIOLOGY*
Harris, S. D., Cheng, J., PUGH, T. A., Pringle, J. R.
1992; 225 (1): 53-65

- **A SER THR-RICH MULTICOPY SUPPRESSOR OF A CDC24 BUD EMERGENCE DEFECT YEAST**
Bender, A., Pringle, J. R.
1992; 8 (4): 315-323
- **A YEAST GENE (BEM1) NECESSARY FOR CELL POLARIZATION WHOSE PRODUCT CONTAINS 2 SH3 DOMAINS NATURE**
Chenevert, J., Corrado, K., Bender, A., Pringle, J., Herskowitz, I.
1992; 356 (6364): 77-79
- **RSR1, A RAS-LIKE GENE HOMOLOGOUS TO KREV-1 (SMG21A/RAP1A) - ROLE IN THE DEVELOPMENT OF CELL POLARITY AND INTERACTIONS WITH THE RAS PATHWAY IN SACCHAROMYCES-CEREVISIAE MOLECULAR AND CELLULAR BIOLOGY**
Ruggieri, R., Bender, A., Matsui, Y., Powers, S., Takai, Y., Pringle, J. R., Matsumoto, K.
1992; 12 (2): 758-766
- **CDC55, A SACCHAROMYCES-CEREVISIAE GENE INVOLVED IN CELLULAR MORPHOGENESIS - IDENTIFICATION, CHARACTERIZATION, AND HOMOLOGY TO THE B-SUBUNIT OF MAMMALIAN TYPE-2A PROTEIN PHOSPHATASE MOLECULAR AND CELLULAR BIOLOGY**
HEALY, A. M., Zolnierowicz, S., Stapleton, A. E., Goebel, M., Depaoliroach, A. A., Pringle, J. R.
1991; 11 (11): 5767-5780
- **Budding and cell polarity in *Saccharomyces cerevisiae*. Current opinion in genetics & development**
Chant, J., Pringle, J. R.
1991; 1 (3): 342-350
- **YEAST BUD5, ENCODING A PUTATIVE GDP-GTP EXCHANGE FACTOR, IS NECESSARY FOR BUD SITE SELECTION AND INTERACTS WITH BUD FORMATION GENE BEM1 CELL**
Chant, J., Corrado, K., Pringle, J. R., Herskowitz, I.
1991; 65 (7): 1213-1224
- **USE OF A SCREEN FOR SYNTHETIC LETHAL AND MULTICOPY SUPPRESSEE MUTANTS TO IDENTIFY 2 NEW GENES INVOLVED IN MORPHOGENESIS IN SACCHAROMYCES-CEREVISIAE MOLECULAR AND CELLULAR BIOLOGY**
Bender, A., Pringle, J. R.
1991; 11 (3): 1295-1305
- **GENETIC-ANALYSIS OF SACCHAROMYCES-CEREVISIAE CHROMOSOME-I - ON THE ROLE OF MUTAGEN SPECIFICITY IN DELIMITING THE SET OF GENES IDENTIFIABLE USING TEMPERATURE-SENSITIVE-LETHAL MUTATIONS GENETICS**
Harris, S. D., Pringle, J. R.
1991; 127 (2): 279-285
- **MOLECULAR ANALYSIS OF SACCHAROMYCES-CEREVISIAE CHROMOSOME-I - IDENTIFICATION OF ADDITIONAL TRANSCRIBED REGIONS AND DEMONSTRATION THAT SOME ENCODE ESSENTIAL FUNCTIONS GENETICS**
DIEHL, B. E., Pringle, J. R.
1991; 127 (2): 287-298
- **CELLULAR MORPHOGENESIS IN THE SACCHAROMYCES-CEREVISIAE CELL-CYCLE - LOCALIZATION OF THE CDC3 GENE-PRODUCT AND THE TIMING OF EVENTS AT THE BUDDING SITE JOURNAL OF CELL BIOLOGY**
Kim, H. B., Haarer, B. K., Pringle, J. R.
1991; 112 (4): 535-544
- **IMMUNOFLUORESCENCE METHODS FOR YEAST METHODS IN ENZYMOLOGY**
Pringle, J. R., Adams, A. E., Drubin, D. G., Haarer, B. K.
1991; 194: 565-602
- **STAINING OF BUD SCARS AND OTHER CELL-WALL CHITIN WITH CALCOFLUOR METHODS IN ENZYMOLOGY**
Pringle, J. R.
1991; 194: 732-735
- **STAINING OF ACTIN WITH FLUOROCHROME-CONJUGATED PHALLOIDIN METHODS IN ENZYMOLOGY**
Adams, A. E., Pringle, J. R.
1991; 194: 729-731

- **CELLULAR MORPHOGENESIS IN THE SACCHAROMYCES-CEREVISIAE CELL-CYCLE - LOCALIZATION OF THE CDC11 GENE-PRODUCT AND THE TIMING OF EVENTS AT THE BUDDING SITE** *DEVELOPMENTAL GENETICS*
Ford, S. K., Pringle, J. R.
1991; 12 (4): 281-292
- **CDC42 AND CDC43, 2 ADDITIONAL GENES INVOLVED IN BUDDING AND THE ESTABLISHMENT OF CELL POLARITY IN THE YEAST SACCHAROMYCES-CEREVISIAE** *JOURNAL OF CELL BIOLOGY*
Adams, A. E., Johnson, D. I., LONGNECKER, R. M., SLOAT, B. F., Pringle, J. R.
1990; 111 (1): 131-142
- **MOLECULAR CHARACTERIZATION OF CDC42, A SACCHAROMYCES-CEREVISIAE GENE INVOLVED IN THE DEVELOPMENT OF CELL POLARITY** *JOURNAL OF CELL BIOLOGY*
Johnson, D. I., Pringle, J. R.
1990; 111 (1): 143-152
- **Yeast cell biology: the wave of the present.** *Yeast Cell Biology sponsored by the Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA, August 15-20, 1989.* *New biologist*
Pringle, J. R.
1990; 2 (1): 37-43
- **MULTICOPY SUPPRESSION OF THE CDC24 BUDDING DEFECT IN YEAST BY CDC42 AND 3 NEWLY IDENTIFIED GENES INCLUDING THE RAS-RELATED GENE RSR1** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Bender, A., Pringle, J. R.
1989; 86 (24): 9976-9980
- **FLUORESCENCE MICROSCOPY METHODS FOR YEAST** *METHODS IN CELL BIOLOGY*
Pringle, J. R., Preston, R. A., Adams, A. E., Stearns, T., Drubin, D. G., Haarer, B. K., Jones, E. W.
1989; 31: 357-435
- **FUNCTIONS OF MICROTUBULES IN THE SACCHAROMYCES-CEREVISIAE CELL-CYCLE** *JOURNAL OF CELL BIOLOGY*
Jacobs, C. W., Adams, A. E., Szaniszlo, P. J., Pringle, J. R.
1988; 107 (4): 1409-1426
- **MAPPING OF THE SACCHAROMYCES-CEREVISIAE CDC3, CDC25, AND CDC42 GENES TO CHROMOSOME XII BY CHROMOSOME BLOTTING AND TETRAD ANALYSIS** *YEAST*
Johnson, D. I., Jacobs, C. W., Pringle, J. R., Robinson, L. C., Carle, G. F., Olson, M. V.
1987; 3 (4): 243-253
- **IMMUNOFLUORESCENCE LOCALIZATION OF THE SACCHAROMYCES-CEREVISIAE CDC12 GENE-PRODUCT TO THE VICINITY OF THE 10-NM FILAMENTS IN THE MOTHER-BUD NECK** *MOLECULAR AND CELLULAR BIOLOGY*
Haarer, B. K., Pringle, J. R.
1987; 7 (10): 3678-3687
- **MOLECULAR-CLONING OF CHROMOSOME I DNA FROM SACCHAROMYCES-CEREVISIAE - ISOLATION AND CHARACTERIZATION OF THE CDC24 GENE AND ADJACENT REGIONS OF THE CHROMOSOME** *MOLECULAR AND CELLULAR BIOLOGY*
Coleman, K. G., Steensma, H. Y., Kaback, D. B., Pringle, J. R.
1986; 6 (12): 4516-4525
- **RELATIONSHIP OF ACTIN AND TUBULIN DISTRIBUTION TO BUD GROWTH IN WILD-TYPE AND MORPHOGENETIC-MUTANT SACCHAROMYCES-CEREVISIAE** *JOURNAL OF CELL BIOLOGY*
Adams, A. E., Pringle, J. R.
1984; 98 (3): 934-945
- **TEMPERATURE-SENSITIVE LETHAL MUTATIONS ON YEAST CHROMOSOME-I APPEAR TO DEFINE ONLY A SMALL NUMBER OF GENES** *GENETICS*
Kaback, D. B., Oeller, P. W., Steensma, H. Y., Hirschman, J., Ruezinsky, D., Coleman, K. G., Pringle, J. R.
1984; 108 (1): 67-90
- **SACCHAROMYCES-CEREVISIAE - HEAT AND GLUCULASE SENSITIVITIES OF STARVED CELLS** *ANNALES DE MICROBIOLOGIE*
Paris, S., Pringle, J. R.
1983; B134 (3): 379-385

- ROLES OF THE CDC24 GENE-PRODUCT IN CELLULAR MORPHOGENESIS DURING THE SACCHAROMYCES-CEREVISIAE CELL-CYCLE *JOURNAL OF CELL BIOLOGY*
SLOAT, B. F., Adams, A., Pringle, J. R.
1981; 89 (3): 395-405
- IDENTIFICATION OF AN ACTIN-LIKE PROTEIN AND OF ITS MESSENGER RIBONUCLEIC-ACID IN SACCHAROMYCES-CEREVISIAE *JOURNAL OF BACTERIOLOGY*
WATER, R. D., Pringle, J. R., KLEINSMITH, L. J.
1980; 144 (3): 1143-1151
- EFFECT OF GROWTH TEMPERATURE UPON HEAT SENSITIVITY IN SACCHAROMYCES-CEREVISIAE *ARCHIVES OF MICROBIOLOGY*
Walton, E. F., Pringle, J. R.
1980; 124 (2-3): 285-287
- RESERVE CARBOHYDRATE-METABOLISM IN SACCHAROMYCES-CEREVISIAE - RESPONSES TO NUTRIENT LIMITATION *JOURNAL OF BACTERIOLOGY*
Lillie, S. H., Pringle, J. R.
1980; 143 (3): 1384-1394
- MUTANT OF YEAST DEFECTIVE IN CELLULAR MORPHOGENESIS *SCIENCE*
SLOAT, B. F., Pringle, J. R.
1978; 200 (4346): 1171-1173
- USE OF CONDITIONAL LETHAL CELL-CYCLE MUTANTS FOR TEMPORAL AND FUNCTIONAL SEQUENCE MAPPING OF CELL-CYCLE EVENTS *JOURNAL OF CELLULAR PHYSIOLOGY*
Pringle, J. R.
1978; 95 (3): 393-405
- COORDINATION OF GROWTH WITH CELL-DIVISION IN YEAST SACCHAROMYCES-CEREVISIAE *EXPERIMENTAL CELL RESEARCH*
Johnston, G. C., Pringle, J. R., Hartwell, L. H.
1977; 105 (1): 79-98
- Methods for avoiding proteolytic artefacts in studies of enzymes and other proteins from yeasts. *Methods in cell biology*
Pringle, J. R.
1975; 12: 149-184
- Methods for monitoring the growth of yeast cultures and for dealing with the clumping problem. *Methods in cell biology*
Pringle, J. R., MOR, J. R.
1975; 11: 131-168
- Induction, selection, and experimental uses of temperature-sensitive and other conditional mutants of yeast. *Methods in cell biology*
Pringle, J. R.
1975; 12: 233-272
- TRANSIENT G1 ARREST OF S-CEREVISIAE CELLS OF MATING TYPE-ALPHA BY A FACTOR PRODUCED BY CELLS OF MATING TYPE-A *EXPERIMENTAL CELL RESEARCH*
Wilkinson, L. E., Pringle, J. R.
1974; 89 (1): 175-187
- GENETIC-CONTROL OF CELL-DIVISION CYCLE IN YEAST *SCIENCE*
Hartwell, L. H., Culotti, J., Pringle, J. R., Reid, B. J.
1974; 183 (4120): 46-51
- Measurement of molecular weights by electrophoresis on SDS-acrylamide gel. *Methods in enzymology*
Weber, K., Pringle, J. R., Osborn, M.
1972; 26: 3-27
- MOLECULAR WEIGHT OF POLYPEPTIDE CHAINS OF YEAST PHOSPHOFRUCTOKINASE *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
Wilgus, H., Pringle, J. R., Stellwag, E.

1971; 44 (1): 89-?

- **MOLECULAR WEIGHT OF UNDEGRADED POLYPEPTIDE CHAIN OF YEAST BEXOKINASE** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*

Pringle, J. R.

1970; 39 (1): 46-?