Curriculum Vitae

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Date and Place of Birth: September 25, 1961; Waterbury, Connecticut

Education:

1979-1983	B.S. in Biochemistry. Cornell University, Ithaca, New York
1983-1988	Ph.D. in Biochemistry. University of California, Berkeley

Positions:

1982-1983	Undergraduate Research Assistant Department of Plant Physiology, Cornell University, Ithaca, NY
1983-1988	Graduate Research Assistant (Adviser: Dr. Randy Schekman) Department of Biochemistry, University of California at Berkeley
1988-1990	Postdoctoral Research Associate Department of Biochemistry. University of California at Berkeley
1990-1994	Postdoctoral Research Associate (Adviser: Dr. Marc Kirschner) Department of Biochemistry and Biophysics, University of California at San Francisco
1994-2000	Assistant Professor of Biology, California Institute of Technology
2000-2005	Associate Professor of Biology, California Institute of Technology
2000-2005	Associate Professor and Assistant Investigator Howard Hughes Medical Institute, California Institute of Technology
2005-2017	Professor and Investigator Howard Hughes Medical Institute, California Institute of Technology
2006-2017	Executive Officer, Division of Biology, California Institute of Technology
2017	Senior Vice President, Discovery Research, Amgen, Inc.

Honors and Awards:

1979-1983	Connecticut State Scholar
1983	Graduated from Cornell University with Honors and Distinction
1984-1985	Regents Fellowship, University of California
1986-1988	NIH Graduate Assistantship
1990-1997	Lucille P. Markey Charitable Trust Scholar Award
1995-1998	Searle Scholar Award
1995	Rita Allen Foundation Scholar Award (declined)
1997-2000	Burroughs-Wellcome New Investigator Award
1997-1999	Beckman Young Investigator Award
1999	ASCB-Promega Early Career Life Scientist Award
2000	Appointed as Assistant Investigator, Howard Hughes Medical Institute
2007	Caltech Graduate Student Council Award for Teaching for 2006-2007
2007	Elected as Fellow, American Association for the Advancement of Science
2008	Biology Undergraduate Student Advisory Committee Teaching Award
2011	Elected as Member, American Academy of Arts and Sciences
2013	Appointed to Editorial Board, eLife
2016	Elected as Member, National Academy of Sciences

Professional Activities:

Scientific Meeting Organization

1999	Member of Program Committee for 1999 ASCB National Meeting
1999	Member of Program Committee for 2000 ASBMB National Meeting
1999	Co-Chair (with Daniel Klionsky), ASCB mini- symposium on Protein Turnover and Autophagy
2000	Chair, ASBMB symposium: '*Control of cell function by regulated proteolysis*'
2001	Co-chair (with Judith Bond), ASBMB Satellite meeting on *'Proteolysis and Cellular Regulation'*
2002	Co-organizer (with Jim Roberts), American Association of Cancer Research meeting on 'Ubiquitin'
2003	Co-organizer (with Peter Howley and Mark Hochstrasser), *The Ubiquitin Family* meeting, Cold Spring Harbor, April 2003
2004	Co-chair (with Avram Hershko), plenary session on *Proteasomes in Cancer*, 2004 AACR National Meeting
2005	Co-organizer (with Peter Howley and Joan Conaway), *The Ubiquitin Family* meeting, Cold Spring Harbor, April 2005
2006	Member, Education Program Committee for 2007 AACR National Meeting

2007	Co-organizer (with Joan Conaway and Wade Harper), *The Ubiquitin Family* meeting, Cold Spring Harbor, April 2007
2007	Chair, plenary session on *Ubiquitin in Cancer*, AACR National Meeting
2012	Co-organizer (with Ivan Dikic), Keystone Symposium, *Ubiquitin Signaling*, Whistler, British Columbia, March 2012
2016	Co-organizer (with Rachel Klevit), FASEB Summer Research Conference, *Ubiquitin & Cell Regulation*, Big Sky, Montana, June 2016

Editorial

1999	Member, Editorial Board, *Journal of Cell Biology*
1999	Co-editor (with Tyler Jacks), volume on Cell Proliferation, *Current Opinion in Cell Biology*
2001	Co-editor (with Martin Eilers), volume on Cell Proliferation, *Current Opinion in Cell Biology*
2001-2011	Founding Associate Editor, *Molecular and Cellular Proteomics*
2004	Member, Editorial Board, *Molecular Cell*
2005	Editor, *Methods in Enzymology*, Volumes 398 and 399, *Ubiquitin and Protein Degradation (Parts A and B)*
2012-	Reviewing Editor, eLife

Advisory and Review Panels

2001	Evaluation of NIH-funded National Center for Research Resources
2002	Consultant, 'Proteomics Planning Meeting', NIH
2002-2007	Member, NIH Study Section CDF-3
2003-2005	Member, Defense Sciences Study Group of the Institute for Defense Analysis
2003	Visiting Review Committee, Institute of Molecular Biology, Academia Sinica, Taiwan
2006	Member, Selection Committee for ASCB Early Career Life Scientist Award
2006	Member, Presidential Search Committee, California Institute of Technology
2007	Chair, Selection Committee for ASCB Early Career Life Scientist Award
2009	Member, HHMI Policy Advisory Group
2010-2013	Member, ASCB Council
2010	Visiting Review Committee, King Abdul-Azziz University (Jeddah), King Abdullah University of Science and Technology (Thuwal), King Faisal University of Petroleum and Minerology (Dammam), King Saud University (Riyadh), Saudi Arabia
2012	Participant, NCI Industry-Academic-Government Collaborations for Cancer Target Validation Meeting
2015	Visiting Review Committee, King Fahd University of Petroleum and Minerology (Dammam), University of Ha'il, Princess Nora bint Abdul Rahman University (Riyadh), Saudi Arabia

Significant Fund-raising and other Leadership Positions

2003	Co-founder of Proteolix. Helped to raise $18 million in venture capital in series A financing. Proteolix was acquired by Onyx in 2009.
2006	Founding Director, Beckman Institute Resource Center: Caltech Proteome Exploration Laboratory (CaPEL)
2006	Awarded $8 million by the Gordon and Betty Moore Foundation to expand the CaPEL
2011	Co-founder of Cleave Biosciences (www.cleavebio.com). Helped to raise $42 million in venture capital series A financing.

Teaching Activities:

1985	Berkeley, Spring semester. Teaching Assistant, Biochemistry Lab
1986	Berkeley, Spring semester. Teaching Assistant, Biochemistry Lecture
1988	Berkeley, Spring semester. Instructor, Molecular Analysis of Mitosis
1995-present	Caltech, Spring semester. Instructor, Bi10 Undergraduate Introductory Molecular Biology Lecture/Lab
1996-2002	Caltech, Fall semester. Co-instructor, Bi226 Genetics Graduate Seminar
1997, 1999	Caltech, Winter semester. Instructor, Principles of Biological Analysis
1999-2009	Caltech, Fall semester. Instructor, Bi250 Adventures in Biology Graduate Course
2011-present	Caltech, Spring semester. Co-instructor, Bi9 Cell Biology

Technology Transfer:

Patents

2000	U.S. Patent 6,165,731: Assay for the ubiquitination-promoting activity of human proteins
2000	U.S. Patent 6,413,725: Biochemical assay to monitor the ubiquitin ligase activities of cullins
2004	U.S. Patent 6,713,267: Biochemical assay to monitor the ubiquitin ligase activities of cullins
2005	U.S. Patent 6,846,663: Regulation of target protein activity through modifier proteins
2006	U.S. Patent 7,041,298 B2: Proteolysis targeting chimeric pharmaceutical
2007	U.S. Patent 7,208,157: Proteolysis targeting chimeric pharmaceutical
2007	U.S. Patent 7,279,317: Modulation of COP9 signalsome isopeptidase activity
2007	U.S. Patent 7,291,494: Regulation of target protein activity through modifier proteins
2008	U.S. Patent 7,279,317: Modulation of COP9 signalsome isopeptidase activity

2015	U.S. Patent 9,089,572: Covalent inhibitors of p97 ATPase activity
2015	U.S. Patent 8,865,708: Methods and compositions for inhibition of the transitional endoplasmic reticulum APTase
2015	U.S. Patent 7,867,724: Compositions and method of treating hypoxia-associated diseases

Consulting for Commercial Entities

2003-2009	Consultant, Proteolix (acquired by Onyx Pharmaceuticals in 2009)
2003-present	Consultant, Genentech
2006	Appointed to Scientific Advisory Board, Rosetta Investments
2006	Appointed to Scientific Advisory Board, Targeted Growth Inc.
2006	Consultant, Chemicon-Millipore
2011-present	Consultant and Member of Scientific Advisory Board, Cleave Biosciences

Research Interests:

Protein Homeostasis and the Ubiquitin-Proteasome System in Health and Disease

Invited Presentations:

1994	Department of Biochemistry, University of Nevada-Reno (2/94)
1995	Program in Genetics, UCLA (3/95) Invited speaker and invited discussant, Pathways Through the Cell Cycle Minisymposium, ASCB Meeting (12/95)
1996	Caltech ResearchDirector's Conference (2/96) Invited speaker/session chair, Cold Spring Harbor Cell Cycle meeting (5/96) Cell Cycle Symposium, ASBMB Meeting 6/96) Department of Biology, Purdue University (9/96) Graduate student seminar, Department of Pathology, Stanford 10/96) Caltech Research Director's Conference (11/96)
1997	Cold Spring Harbor Yeast Genetics Course (8/97) Institute of Molecular Pathology, Vienna (8/97) Centre d'Energie Atomique, Saclay, France (10/97) Jacques Monod Conference on Cell Cycle, Roscoff, France (10/97) Swiss Federal Institute of Technology, Zurich (11/97) ISREC, Epalinges, Switzerland (11/97) Scripps Research Institute, La Jolla (11/97) Department of Biology, UC Santa Cruz (12/97)
1998	Keystone Conference on Cell Cycle (4/98) ProScript Inc., Cambridge MA (4/98) Merck Evening Lecture Series, UC Berkeley (4/98)

Novartis, E. Hanover, NJ (4/98)
International Society of Nephrology Annual Meeting, Jackson WY (6/98)
FASEB meeting on Yeast Chromosome Metabolism, Snowmass (8/98)
UCLA-Harbor Medical Center (9/98)
Department of Biochemistry, UMDNJ (9/98)
Dept. of Cell Biology & Physiology, Washington Univ., St. Louis (10/98)
Biochemistry Program, Cal Tech (12/98)

1999
Lineberger Symposium, University of North Carolina (3/99)
Dept. of Biochemistry and Molecular Biology, University of Chicago (3/99)
Children's Hospital, Los Angeles (3/99)
Keystone Symposium, *Molecular Chaperones, Protein Folding, and Protein Degradation* (4/99)
Princeton University (5/99)
Graduate course in Department of Pathology, Stanford University (5/99)
UCLA Biochemistry Department annual retreat, Lake Arrowhead (5/99)
FASEB meeting on Ubiquitin (8/99)
NICHD Symposium on Biology of the Eukaryotic Nucleus, Berkeley Springs, WV (9/99)
Annual AACR meeting, San Diego (10/99)
University Southern California (10/99)
Department of Molecular Biology, UT Southwestern (11/99)
Department of Cell Biology, Harvard Med. (11/99)
Dept. of Genetics and Developmental Biology, Columbia University (11/99)

2000
Keystone Symposium, *Cancer, Cell Cycle, and Therapeutics* (1/00)
University of California, Irvine (1/00)
Annual symposium, Emory University (4/00)
American Society of Microbiology annual meeting, Los Angeles (5/00)
Symposium organizer and invited speaker, American Society of Biochemistry and Molecular Biology annual meeting, Boston (6/00)
Massachusetts General Hospital (6/00)
Molecular Genetics Gordon Conference (7/00)
FASEB Yeast Chromosome meeting (8/00)
Whitehead Symposium MIT (10/00)
University of California, Davis (10/00)
Institute of Molecular Biology, University of Oregon (11/00)
Biological Sciences, University of Pittsburgh (11/00)
Biochemistry amd Biophysics, UC San Francisco (12/00)

2001
Cell Cycle Meeting, Taos (1/01)
Signal Pharmaceuticals (2/01)
GlaxoSmithKline (2/01)
University of Maryland Baltimore County (2/01)
Department of Biochemistry, St. Louis University (2/01)
Exelixis Pharmaceuticals (3/01)
MDC symposium on protein transport and stability, Berlin, (3/01)
ASBMB Annual Meeting, Orlando (3/01)

Rigel Pharmaceuticals (4/01)
Axys Pharmaceuticals (4/01)
FASEB Ubiquitin meeting, Vermont (6/01)
Salk Institute Oncogene meeting (8/01)
Mass Spectrometry meeting, San Francisco (8/01)
Millenium Pharmaceuticals (10/01)

2002

Duke University Cancer Biology Program (1/02)
University of Virginia, Virginia (1/01)
University of Colorado Health Sciences, Denver (2/02)
UT Health Sciences Center, San Antonio (2/02)
Gordon Research Conference, *Reversible Associations in Structural and Molecular Biology*, Ventura (2/02)
HHMI conference (3/02)
ABRF annual meeting Austin, Texas (3/02)
BSCB meeting, University of York (3/02)
Session chair, Cell Cycle Meeting, Cold Spring Harbor (5/02)
University of Utah Genetics Training Grant Retreat (5/02)
Proteolytic Machines in Human Disease, Bellagio, Italy (6/02)
FASEB Yeast Chromosome Meeting, Aspen (7/02)
Gordon Conference On Molecular Genetics, New London (7/02)
Molecular Basis of Development and Disease, Hunan, China (8/02)
Cytokinetics Seminar, San Francisco (9/02)
Genentech Inc., San Francisco (9/02)
Ubiquitination in Normal Cancer Cells, Vancouver, (10/02)
How to succeed in graduate school and beyond without really trying, Caltech (11/02)
The Ubiquitin-Proteasome System, Instituto Juan March de Estudios e Investigaciones, Madrid (11/02)
NCI meeting on the ubiquitin-proteasome pathway (12/02)

2003

The Dana-Farber Cancer Institute, Boston (1/03)
Abramson Family Cancer Research Institute, Univ. of Pennsylvania (1/03)
Invited speaker and session chair, Keystone Symposium on Cancer Therapeutics, Banff (3/03)
Gordon Conference, Boston (6/03)
Boston Marc-a-thon, Boston (7/03)
ASMS meeting, Monterey (10/03)
Japanese Ministry of Education, Science, and Technology Symposium on Proteolysis and Cellular Regulation, Tokyo (10/03)
Riken Wako Institute, Saitama, Japan (10/03)
AACR meeting on Molecular Targets in Cancer, Boston (11/03)
Institute of Molecular Biology, Academia Sinica, Taiwan (12/03)

2004

University of California, Los Angeles (1/04)
University of California, Irvine (1/04)
Biochemistry & Molecular Biology Seminar, Mayo Clinic, Rochester (1/04)
Cold Spring Harbor Laboratory (1/04)

Memorial Sloan-Kettering Cancer Center, New York (1/04)
Northwestern University, Chicago (1/04)
AACR 95th Annual Meeting, Orlando (3/04)
MIT Biology Colloquium, Cambridge (3/04)
Distinguished Lecturer, Cornell University, Ithaca (4/04)
University of Washington, Seattle (4/04)
Pierce College, Woodland Hills, CA (4/04)
Washington University, St. Louis (10/04)
University of California, Riverside (11/04)
AACR *Cell Cycle and Cancer: Pathways and Therapies* conference, Ft. Lauderdale (12/04)
ASCB Proteolysis Symposium, Washington DC (12/04)

2005
University of California, San Diego (2/05)
Vanderbilt University, Nashville (2/05)
Keystone Symposium on Ubiquitin and Signaling, Taos (2/05)
University of California, San Diego (3/05)
University of Pittsburgh (3/05)
Yale University (3/05)
AACR 96th Annual Meeting, Anaheim (4/05)
McGill University, Montreal (6/05)
Max Planck Institute for Cell Biology and Genetics, Dresden (6/05)
Institute of Molecular Pathology, Vienna (6/05)
Max Planck Institute for Developmental Biology, Tubingen (6/05)
Amgen, Thousand Oaks (9/05)
University of Colorado, Boulder (9/05)
City of Hope, Duarte (10/05)
Israel Academy of Sciences & Humanities, *Day of Ubiquitin* in honor of Nobel Prize in Ubiquitin for Avram Hershko, Aaron Ciechanover, and Irwin Rose (10/05)

2006
Pomona College (1/06)
Plenary lecturer, KHUPO 6th Annual Meeting, Seoul (2/06)
Harvey Mudd College, Claremont, CA (4/06)
FASEB Conference, *Ubiquitin and Cellular Regulation*, Vermont Academy, Saxton's River (7/06)
Ubiquitin and Diseases workshop, Hebrew University, Jerusalem (10/06)
Keynote speaker, 5th HUPO World Congress, Long Beach (11/06)
University of Wisconsin, Madison (11/06)
ASN 39th Annual Renal Week Meeting, San Diego (11/06)
University of Utah, Salt Lake City (12/06)
48th ASH Annual Meeting, Orlando (12/06)

2007
University of San Francisco (1/07)
IRIC, University of Montreal (3/07)
17th Annual Cancer Progress Conference, New York (3/07)
New York University (3/07)
AACR Annual Meeting 2007, Los Angeles (4/07)

The Ubiquitin Family meeting, Cold Spring Harbor (4/07)
NIH/Salk Institute Workshop on Ubiquitin and Viruses (8/07)
2007 International Symposium on Protein Modification and Degradation, Beijing (11/07)
University of California Los Angeles (12/07)

2008
Harvard Medical School (1/08)
AACR Special Conference on Ubiquitin and Cancer, San Diego (1/08)
University of Southern California (3/08)
FASEB conference, *Ubiquitin & Cellular Regulation*, Saxton's River (6/08)
Watson Lecture, Caltech (11/08)

2009
Keystone Symposium, Copper Mountain, Colorado (1/09)
Harvard Center for Cancer Biology Symposium (2/09)
FASEB Experimental Biology 2009, New Orleans (4/09)
The Ubiquitin Family meeting, Cold Spring Harbor (4/09)
University of California, San Diego (5/09)
Cell Signaling and Molecular Dynamics Symposium, Cornell (10/09)

2010
Burnham Institute, San Diego (2/10)
Weill Cornell Medical College, New York (3/10)
University of Kentucky, Lexington (3/10)
Proteomics of Protein Degradation & Ubiquitin Pathways, Vancouver (6/10)
FASEB *Ubiquitin and Cellular Regulation* conference, Saxton's River (6/10)
Genomics Institute of the Novartis Foundation, San Diego (8/10)
FASEB conference, *Yeast Chromosome Structure, Replication & Segregation*, Carefree (8/10)
Scottish Institute for Cell Signaling (SCILLS), Edinburgh (8/10)
Research Institute of Molecular Pathology (IMP), Vienna (9/10)
University of California, Irvine (9/10)
University of California, Santa Cruz (10/10)
Signaling Through Ubiquitin meeting, Cold Spring Harbor (11/10)

2011
University of California, Berkeley (1/11)
New York University (2/11)
Princeton University (2/11)
Keystone Symposium, *AAA and Related ATP-driven Protein Machines*, Tahoe City, CA (3/11)
The Ubiquitin Family meeting, Cold Spring Harbor (5/11)
The 26th Aspen Cancer Conference, Aspen, CO (7/11)
Institute of Biochemistry, Goethe University, Frankfurt (9/11)
EMBO Conference, *Ubiquitin and Ubiquitin-Like Modifiers*, Cavtat (9/11)
ASCB Annual Meeting, Denver (12/11)

2012
Harvard Medical School (1/12)
The Scripps Research Institute (2/12)
Keystone Symposium, *NF-kappaB Signaling and Biology: From bench to bedside/Ubiquitin signaling*, Whistler, British Columbia (3/12)

Pepperdine University (3/12)
FASEB *Ubiquitin & Cellular Regulation* conference, Saxtons River (6/12)
Max-Delbrück-Center for Molecular Medicine, Berlin (9/12)
XOMES VII, *Ubiquitin family proteins and their cognate PCI complexes*, Munich (9/12)
ETH Zurich Institute of Biochemistry (9/12)
ComBio 2012, Adelaide (9/12)

2013
University of California, Los Angeles (2/13)
3rd Ubiquitin Research and Drug Discovery Conference, Las Vegas (2/13)
University of South Dakota, Vermillion (4/13)
The Ubiquitin Family meeting, Cold Spring Harbor (5/13)
Temple University (5/13)
University of Pennsylvania (5/13)
Proteasome-Ubiquitin Minisymposium, Tokyo (7/13)
Naito Conference, Sapporo (7/13)
EMBO Workshop, *AAA+ Proteins*, Neuss (9/13)
The 5th EMBO Meeting, Amsterdam (9/13)

2014
Keynote speaker, Keystone Symposium, Big Sky (1/14)
University of Texas Southwestern Medical Center (2/14)
ASBMB Annual Meeting, San Diego (4/14)
FASEB conference, *Ubiquitin & Cellular Regulation*, Saxtons River (6/14)
60th Benzon Symposium, Copenhagen (8/14)
3rd Annual ICBS Conference, San Francisco (11/14)
ZOMES VII Conference, Xiamen (11/14)
HKUST Strategic Partnership Workshop, Hong Kong (12/14)

2015
University of Wisconsin, Madison (1/15)
University of Nevada, Las Vegas (2/15)
5th Ubiquitin Research and Drug Discovery Conference, San Diego (2/15)
US Human Proteome Organization Annual Meeting, Tempe (3/15)
Stanford School of Medicine (3/15)
Partners in Discovery: Caltech-City of Hope Biomedical Research Initiative Workshop (4/15)
Pfizer 8th Annual Frontiers in Human Disease Symposium, New York (4/15)
University of California, San Diego (6/15)
Leiden University Medical Center (9/15)
EMBO Conference, *Ubiquitin and ubiquitin-like modifiers*, Cavtat (9/15)
ZMBH, Heidelberg (9/15)
Institute of Molecular Biology, Mainz (9/15)
Cell Biology of Yeasts meeting, Cold Spring Harbor (11/15)
ENMC *VCP Multisystem Proteinopathy* workshop, Naarden (11/15)

2016 University of Kansas Cancer Center (1/16)
City of Hope, Duarte (1/16)
Keynote speaker, 6th Ubiquitin Research & Drug Discovery Conference, San Diego (2/16)
Keystone Symposium, *Ubiquitin Signaling*, Whistler, BC (3/16)
Keynote speaker, Experimental Biology 2016, San Diego (4/16)
University of California, Berkeley (4/16)
Yale (9/16)
Protein Signaling Conference, Copenhagen (10/16)
Ecole Polytechnique Federale de Lausanne (11/16)
University of California, San Francisco (11/16)

2017 Children's Hospital of Philadelphia (1/17)

Research Support:

Howard Hughes Medical Institute Assistant Investigator Award
Period: 7/01/00 to 8/31/20
Title: *Control of Cell Proliferation by Ubiquitin-Dependent Proteolysis*

R01 GM065997
Period: 5/1/11 to 4/30/19
Title: *Regulation of cullin-RING ligases by Nedd8*

R01 CA164803
Period: 1/01/13 to 12/31/17
Title: *Role of CSN5 in the activity and dynamic cycling of cullin-RING ubiquitin ligases*

Gates/Grubstake Fund Award
Period: 10/1/13 to 9/30/19
Title: *Using IMiDs as a versatile platform to control protein degradation*

NIH
Period: 09/01/15 to 08/31/20
Title: Nanosystems Biology Cancer Center

BIBLIOGRAPHY

1. Fish, L.E., Deshaies, R., and Jagendorf, A.T. (1983). A Mg^{2+} requirement for rapid ATP-driven protein synthesis by intact pea chloroplasts. Plant Sci. Lett. 31, 139-146.
2. Deshaies, R.J., Fish, L.E., and Jagendorf, A.T. (1984). Permeability of chloroplast envelopes to Mg^{2+}. Effects on protein synthesis. Plant Physiol. 74, 956-961.
3. Deshaies, R.J., and Schekman, R. (1987). A yeast mutant defective at an early stage in import of secretory protein precursors into the endoplasmic reticulum. J. Cell Biol. 105, 633-645.
4. Deshaies, R.J., Koch, B.D., Werner-Washburne, M., Craig, E.A., and Schekman, R. (1988). A subfamily of stress proteins facilitates translocation of secretory and mitochondrial precursor polypeptides. Nature **332**, 800-805.
5. Bohni, P.C., Deshaies, R.J., and Schekman, R. (1988). *SEC11* is required for signal peptide processing and yeast cell growth. J. Cell Biol. 106, 1035-1042.
6. Deshaies, R.J., Koch, B.D., and Schekman, R. (1988). The role of stress proteins in membrane biogenesis. Trends Biochem. Sci. 13, 384-388.
7. Deshaies, R.J., Kepes, F., and Bohni, P.C. (1989). Genetic dissection of the early stages of protein secretion in yeast. Trends Genet. 5, 87-93.
8. Deshaies, R.J., and Schekman, R. (1989). *SEC62* encodes a putative membrane protein required for protein translocation into the yeast endoplasmic reticulum. J. Cell Biol. 109, 2653-2664.
9. Rothblatt, J.A., Deshaies, R.J., Sanders, S.L., Daum, G., and Schekman, R. (1989). Multiple genes are required for proper insertion of secretory proteins into the endoplasmic reticulum in yeast. J. Cell Biol. 109, 2641-2652.
10. Deshaies, R.J. and Schekman, R. (1990). Structural and functional dissection of Sec62p, a membrane-bound component of the yeast endoplasmic reticulum protein import machinery. Mol. Cell. Biol. 10, 6024-6035.
11. Deshaies, R.J., Sanders, S., Feldheim, D., and Schekman, R. (1991). Assembly of yeast Sec proteins involved in translocation into the endoplasmic reticulum into a membrane-bound multisubunit complex. Nature 349, 806-808.
12. Stirling, C.J., Rothblatt, J., Hosobuchi, M., Deshaies, R., and Schekman, R. (1992). Protein translocation mutants defective in the insertion of integral membrane proteins into the endoplasmic reticulum. Mol. Biol. Cell 3, 129-142.
13. Esnault, Y., Blondel, M.O., Deshaies, R.J., Schekman, R. and Kepes, F. (1993). The yeast SSS1 gene is essential for secretory protein translocation and encodes a conserved protein of the endoplasmic reticulum. EMBO J. 12, 4083-4093.
14. Booher, R.N., Deshaies, R.J. and Kirschner, M.W. (1993). Properties of Saccharomyces cerevisiae wee1 and its differential regulation of p34CDC28 in response to G1 and G2 cyclins. EMBO J. 12, 3417-3426.
15. Li, J.J. and Deshaies, R. J. (1993). Exercising self-restraint: discouraging illicit acts of S and M in eukaryotes. Cell 74, 223-226.

16. Deshaies, R.J., Chau, V., and Kirschner, M.W. (1995). Ubiquitination of the G1 cyclin Cln2p by a Cdc34p-dependent pathway. EMBO J. 14, 303-312.
17. Deshaies, R.J. and Kirschner, M.W. (1995). G1 cyclin-dependent activation of $p34^{CDC28}$ *in vitro*. Proc. Natl. Acad. Sci. USA 92, 1182-1186.
18. Gerber, M.R., Farrell, A., Deshaies, R.J., Herskowitz, I. and Morgan, D.O. (1995). CDC37 is required for association of the protein kinase CDC28 with G1 and mitotic cyclins. Proc. Natl. Acad. Sci. USA 92, 4651-4655.
19. Banerjee, A., Deshaies, R.J., and Chau, V. (1995). Characterization of a dominant negative mutant of the cell cycle ubiquitin-conjugating enzyme Cdc34. J. Biol. Chem. 270, 26209-26215.
20. Deshaies, R.J. (1995). Make it or break it: the role of ubiquitin-dependent proteolysis in cellular regulation. Trends Cell Bio. 5, 428-434.
21. Deshaies, R.J. (1995). The self-destructive personality of a cell cycle in transition. Curr. Opin. Cell Biol. 7, 781-789.
22. King, R.W., Deshaies, R.J., Peters, J.M., and Kirschner, M.W. (1996). How proteolysis drives the cell cycle. Science 274, 1652-1659.
23. Deshaies, R.J. (1997). Phosphorylation and proteolysis: partners in the regulation of cell division in budding yeast. Curr. Opin. Genet. Dev. Biol. 7, 7-16.
24. Verma, R., Chi, Y., and Deshaies, R.J. (1997). Cell-free ubiquitination of cell cycle regulators in budding yeast extracts. Methods Enzymol. 283, 366-376.
25. Verma, R., Feldman, R.M.R., and Deshaies, R. J. (1997). SIC1 is ubiquitinated in vitro by a pathway that requires CDC4, CDC34, and cyclin/CDK activities. Mol. Biol. Cell 8, 1427-1437.
26. Verma, R., Annan, R., Huddleston, M., Carr, S., Reynard, G., and Deshaies, R.J. (1997). Phosphorylation of Sic1p by G1 cyclin/Cdk is required for its degradation and entry into S phase. Science 278, 455-460.
27. Feldman, R.M.R., Correll, C.C., Kaplan, K.B., and Deshaies, R.J. (1997). A Complex of Cdc4, Skp1, and Cdc53/Cullin Catalyzes Ubiquitination of the Phosphorylated CDK Inhibitor Sic1. Cell 91, 221-230.
28. Henchoz, S., Chi, Y., Catarin, B., Herskowitz, I., Deshaies, R.J., and Peter, M. (1997). Phosphorylation and ubiquitin-dependent degradation of the cyclin-dependent kinase inhibitor Far1p in budding yeast. Genes Dev. 11, 3046-3060.
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