

CURRICULUM VITAE
GEORGE M. CARMAN

Business Address:

Department of Food Science
Rutgers University
65 Dudley Road
New Brunswick, NJ 08901
Tel: (732) 932-9611, ext 217
Fax: (732) 932-6776
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Home Address:

5 Sheridan Drive
West Windsor, NJ 08550
Tel: (609) 275-8652

Education:

Ph.D., Food Biochemistry, University of Massachusetts, 1977
M.S., Microbiology, Seton Hall University, 1974
B.A., Biology (with honors), William Paterson College, 1972

Appointments:

Director, Center for Lipid Research, Rutgers University, 2007-present
Professor II, Department of Food Science, Rutgers University, 1990-present
Visiting Professor, Department of Molecular Biology, Princeton University, 1990-1991
Professor, Department of Food Science, Rutgers University, 1986-1990
Associate Professor, Department of Food Science, Rutgers University, 1982-1986
Assistant Professor, Department of Food Science, Rutgers University, 1978-1982
Postdoctoral Research Fellow, Department of Biochemistry and Molecular Biology,
University of Texas Medical School, Houston, 1977-1978

Honors:

Research Excellence Award for Sustained Research and Impact, School of Environmental and
Biological Sciences (2009)
Faculty Mentor of the Year, Compact for Faculty Diversity (2008)
Merck-AAAS Speaker, Hope College (2006)
American Oil Chemists Society-Supelco/Nicholas Pelick Research Award (2004)
Endel Karmas Award for Teaching Excellence, Rutgers University (2004)
Board of Trustees Award for Excellence in Research, Rutgers University (1999)
American Academy of Microbiology Fellow (1998)
Foundation for Microbiology Lecturer (1996-1998)
Selman A. Waksman Honorary Lectureship Award (1996)
Research Excellence Award, NJ Agricultural Experiment Station (1993)
Merit Awards from Rutgers University (1981, 1983, 1985-1991, 1993, 1994, 1997-2008)
Chairman, Gordon Research Conference-Molecular and Cellular Biology of Lipids (1993)
Invited speaker: Gordon Research Conference-Molecular and Cellular Biology of Lipids (1985,
1987, 1995, 1999, 2001, 2007, 2009); Gordon Research Conference-Food Microbial Safety
(1982); FASEB Research Conference-Phospholipases (1995, 1999), FASEB Research
Conference-Phospholipid Metabolism: disease, signal transduction and membrane dynamics

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(2008); Keystone Symposia-Cell Activation and Signal Transduction: Lipid Second Messengers (1998, 2000)

Discussion Leader: Gordon Research Conference-Molecular and Cellular Biology of Lipids (2003, 2005)

Distinguished Alumni Award from William Paterson College, 1981

Welch Foundation Postdoctoral Fellowship, 1977

Manufacturers Hanover Trust Co. Scholarship, 1968

Memberships in the American Society of Biochemistry and Molecular Biology and the Honorary Societies of Sigma Xi, Phi Tau Sigma

Listed in Men of Achievement, Who's Who in the East, Who's Who in Science and Engineering, and American Men and Women of Science

Associate/Executive Editorships:

Analytical Biochemistry, Executive Editor, 1994-2009

Biochimica et Biophysica Acta, Executive Editor, 2004-2006, Guest Editor, "Regulation of Lipid Metabolism in Yeast" (special issue), 2007

Journal of Biological Chemistry, Associate Editor, 2006-2011

Journal of Lipid Research, Associate Editor, 2003-2006

Editorial Boards:

Applied and Environmental Microbiology, Board Member, 1985-1990

Gene Regulation and Systems Biology, Board Member, 2006-2008

Journal of Bacteriology, Board Member, 1992-1994

Journal of Biological Chemistry, Board Editor, 1998-2003, 1992-1997

Journal of Food Biochemistry, Board Member, 1979-1992

Journal of Food Science, Board Member, 1985-1987

Journal of Lipid Research, Board Member, 2006-2012

InSight, Board Member, 1998-2002

World Journal of Biological Chemistry, Board Member, 2009-2013

Professional Affiliations:

American Society for *Biochemistry* and Molecular Biology, American Oil Chemists' Society, American Society for Microbiology, American Chemical Society, and Institute of Food Technologists

Research Areas:

Enzymology and molecular biology of phospholipid metabolism and lipid signaling in the yeast *Saccharomyces cerevisiae*

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Grants:

Federal Grants:

National Institutes of Health, Regulation of Phospholipid Synthesis, GM 50679, Total:
\$1,279,896, 20009-2013

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$1,528,661, 2006-2010

National Institutes of Health, Liquid Chromatography Mass Spectrometry System, RR 021120,
Total: \$424,851, 2006, Co-Investigator

National Institutes of Health, Regulation of Phospholipid Synthesis, GM 50679, Total:
\$1,125,608, 2005-2009

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$1,212,770, 2002-2006

National Institutes of Health, Regulation of Phospholipid Synthesis, GM 50679, Total:
\$1,061,748, 2001-2005

National Institutes of Health, Regulation of Phospholipid Synthesis by CTP, GM 50679, Total:
\$685,663, 1998-2001

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$1,020,177, 1997-2001

National Institutes of Health, Regulation of Phospholipid Synthesis by CTP, GM 50679, Total:
\$1,170,577, 1994-1998

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$396,481, 1992-1997

National Science Foundation, Regulation of Yeast Phosphatidate Phosphatase, DCB 9204588,
Total: \$230,000, 1992-1995

National Institutes of Health, Regulation of Phosphatidylinositol Metabolism, GM 35655, Total:
\$779,802, 1989-1995

National Institutes of Health, 1993 Gordon Research Conference on Lipid Metabolism, GM
49037, Total: \$3,000, 1993

National Science Foundation, 1993 Gordon Research Conference on Lipid Metabolism, IBN
9300895, Total: \$2,000, 1993

American Heart Association, 1993 Gordon Research Conference on Lipid Metabolism, Total:
\$3,000, 1993

United States Department of the Army, 1993 Gordon Research Conference on Lipid
Metabolism, Total: \$2,000, 1993

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$735,842, 1987-1992

National Institutes of Health, Regulation of Phosphatidylinositol Metabolism, GM 35655, Total:
\$256,419, 1986-1989

National Institutes of Health, Phospholipid Metabolism and Membrane Function, GM 28140,
Total: \$300,000, 1984-1987

National Institutes of Health, Phosphatidylinositol Metabolism and Membrane Function, GM
28140, Total: \$163,141, 1980-1983

United States Department of Agriculture, Determination of Phosphatidylcholine by Enzymatic
Analysis, Total: \$6,000, 1980

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Industrial Grants:

Universal Foods Corporation, Biochemistry of Yeast Cell Membranes, Total: \$18,500, 1980-1984

General Foods Fund, Reduction of Linolenic Acid from Soybean Oil, Total: \$20,000, 1979-1981

Mobil Oil Foundation, Enzyme Research Project, Total: 10,000, 1981-1982

Rutgers University Grants:

Charles and Johanna Busch Memorial Fund, Regulation of Diacylglycerol Pyrophosphate Phosphatase in Yeast. Total: \$20,000, 1997-1999

Charles and Johanna Busch Memorial Fund, Regulation of CTP Synthetase by Phosphorylation. Total: \$9,000, 1994-1996

Charles and Johanna Busch Memorial Fund, Cloning of the Yeast Phosphatidate Phosphatase Gene(s), Total: \$9,000, 1992-1994

Charles and Johanna Busch Memorial Fund, Molecular Cloning of the Yeast Phosphatidylinositol Kinase Gene, Total: \$7,533, 1990-1992

Charles and Johanna Busch Memorial Fund, Regulation of Phosphatidate Phosphatase Activity in *Saccharomyces cerevisiae*, Total: \$5,880, 1988-1990

Charles and Johanna Busch Memorial Fund, Purification of the Phospholipid *N*-methyltransferases from *Saccharomyces cerevisiae*, Total: \$6,000, 1986-1988

Charles and Johanna Busch Memorial Fund, Phosphatidylinositol Synthase in Yeast, Total: \$6,000, 1984-1986

Charles and Johanna Busch Memorial Fund, CDP-Diglyceride-Dependent Synthesis and Membrane Function, Total: \$5,500, 1982-1984

Biomedical Research Support Grant, Phosphatidylserine Synthase in *Clostridium perfringens*, Total: \$6,400, 1980-1982

Biomedical Research Support Grant, Structure and Function of Membrane Proteins in *Clostridium perfringens*, Total: \$4,100, 1979-1980

Research Council, Plant Membrane Proteins, Total: \$1,500, 1978-1979

Agricultural Experiment Station Grants:

NJ State Project 10108, Phospholipid Metabolism and Membrane Function in Baker's Yeast, Total: \$46,150, 1982-1992

Regional Project NE-116, Quality Maintenance and Control in the Marketing of Vegetables, Total: \$28,650, 1978-1987

Regional Project NE-103, Postharvest Physiology of Fruits, Total: \$10,500, 1978-1981

Teaching:

Undergraduate: (Program of Food Science)

Food Chemistry

Topics in Food Chemistry

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Graduate: (Programs of Food Science, Biochemistry, Microbiology, Molecular Biosciences, and Nutritional Sciences)

Food Enzymology, Food Fundamentals II (participate), Advanced Biochemistry (participate), Biochemistry and Molecular Biology (participate), Yeasts (participate), Microbial Biochemistry (participate), Lipids and Signal Transduction (seminar).

Current Laboratory Members:

Gil-Soo Han, Research Assistant Professor	Florencia Pascual, Graduate Student
Zhi Xu, Research Associate	Wen-Min Su, Graduate student
Hyeon-Son Choi, Postdoctoral Fellow	Minjung Chae, Graduate student
Stylianos Fakas, Postdoctoral Fellow	Christopher Roller, Undergraduate student
Anibal Soto, Graduate student	Devin Plote, Undergraduate student

Former Laboratory Members:

Postdoctoral Fellows

Sreenivas Avula (1999-2005)	Michael J. Homann (1988)	Shanthi Rangaswamy (1995-1996)
Myonsuk Bae-Lee (1988-1989)	Michael C. Kersting, (2002-2005)	Joseph E. Stukey (1993-1995)
Maria Bruno (1993-1995)	Keunsung Kim (1997-1999)	David A. Toke (1996-1999)
Lorena Eguez (2007-2008)	Anthony J. Kinney (1988-1989)	Kathleen Welsch (1988)
Donna Fugit (1983)	Virginia M. McDonough (1992-1995)	Ying Yu (2000-2002)
Kathleen Holland (1986)	Jeanelle Morgan (2006-2009)	Geri M. Zeimet (1995-1997)

Ph.D. Recipients

Myongsuk Bae-Lee (1986)	Seung-Hee Han (2007)	June Oshiro (2003)
Charles J. Belunis (1989)	Michael J. Homann (1987)	Darin B. Ostrander (1998)
Rosa J. Buxeda (1993)	Wendy Iwanyshyn (2005)	Apostolos Pappas (1999)
Yu-Fang Chang (2007)	Michael J. Kelley (1989)	Tae-Sik Park (2001)
Mal-Gi Choi (2006)	Kee-Hong Kim (1999)	Margaret A. Poole (1986)
Hyeon-Son Choi (2008)	Yi-Ping Lin (1991)	Wen-I Wu (1995)
Michael C. Cirigliano (1986)	Kelly R. Morlock (1991)	Weng-Lang Yang (1996)
Anthony S. Fischl (1986)	He Mu (2000)	Ying Yu (2000)
Paulette M. Gaynor (1989)	Joseph T. Nickels Jr. (1993)	

M.S. Recipients

Mal-Gi Choi (2003)	Michael J. Homann (1984)	Daniel J. O'Brien (2001)
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Jeffery J. Cousminer (1982)	Joyce M. Hromy (1986)	June Oshiro (1999)
Deirdre A. Dillion (1997)	Celeste N. Johnston (2002)	Jennifer Quinlan (1991)
Steven M. Felder (1980)	Maureen McKenzie (1982)	Michele Robinson (1981)
Anthony S. Fischl (1983)	Douglas Minck (1989)	Jeanette E. Quinn (2001)
Jamie Furneisen (1999)	Anupama Nadkarni (1994)	

Undergraduate Students

Francis P. Amoako	Mary Beth Harvey	Devin Plote
Charles J. Belunis	Tara Havriluk	Christopher Roller (Honors)
Wendy L. Bennett (Honors)	Barbara Hessel (Honors)	Ripka Sethi
Donna Berkowitz	Michael J. Kelley	Sunita Singh Panghaal
May P. Bersalona (Honors)	Courtney Lee	Joan Soltiziak
Jessica Casciano	Rebecca Lifchus	Lenna Varughese
Joeseph Cagno	Fred Lozy (Honors)	Karyn A. Walsh
Francis Ciccone	Chih-Ann Grace Luan	Ruth Werner
Rosie Cullen	Daniel J. Markley (Honors)	Sharon J. Woelfel
Maureen Dougherty	Marcia McClintick (Honors)	Richard Zaniewski (Honors)
Anthony S. Fischl	Jennifer McLaughlin	Hank Zhang
Rachel Freidenreich	Anupama Nadkarni (Honors)	Yana Zhao
Mariusz Grabowski	Michele Nelison	
George Harrington	Matthew Park	

Collaborators:

Markus Aebi, Eidgenössische Technische Hochschule Zentrum, Switzerland
Robert M. Bell, Duke University Medical Center
Enoch P. Baldwin, University of California, Davis
Kendall J. Blumer, Washington School of Medicine
David N. Brindley, University of Alberta, Canada
James Broach, Princeton University
Roman Chrast, University of Lausanne, Switzerland
Günther Daum, Technische Universität Graz, Austria
Edward A. Dennis, University of California, San Diego
William Dowhan, University of Texas Medical School, Houston
Joseph Eichberg, University of Houston
Scott Emr, University of California, San Diego
Susan A. Henry, Cornell University
Michael Kazmaier, DSV-DEVM Laboratoire de Radiobiologie Végétale, France
Claudia Kent, University of Michigan
Christopher McMaster, Dalhousie University, Canada
Alfred R. Merrill, Georgia Institute of Technology
Thomas Montville, Rutgers University
Robert Niederman, Rutgers University
Odile Ozier-Kalogeropoulos, Laboratoire propre associé à l'Université Pierre et Marie Curie, France

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Christian R.H. Raetz, Duke University Medical School
Symeon Siniossoglou, University of Cambridge, United Kingdom
Myron Solberg, Rutgers University
Paul Sternweis, University of Texas Southwestern Medical Center
Ming-Daw Tsai, Ohio State University
Dennis R. Voelker, National Jewish Center
Charles J. Waechter, University of Kentucky College of Medicine
Bruce P. Wasserman, Rutgers University
Josef Wissing, Gesellschaft für Biotechnologische Forschung, Germany

Service to National/International Organizations:

American Society for Biochemistry and Molecular Biology
Meetings Committee, 2001-2004, Chair, 2002-2004
Annual Meeting Program Planning Committee, Co-Chair, 2006, 2001, Member, 1998,
2002-2004
National Council, 2000-2001, 2002-2006
Strategic Plan Retreat, 2000
Satellite Meeting “Membrane Lipids and Cell Function,” Co-Organizer, 2001
Satellite Meeting “Molecular Characterization of Membrane Lipid Metabolism,” Co-
Organizer, 1998
Theme Meeting “Biochemistry and Molecular Biology of Lipids,” Co-Organizer, 2006
Biotechnology and Biological Sciences Research Council of Scotland, Hannah Research
Institute Visiting Group, 1999
Federation of American Societies for Experimental Biology
FASEB Summer Research Conferences Advisory Committee, 2003-2009
Experimental Biology Executive Board, 2005-2008
Gordon Research Conference-Molecular and Cellular Biology of Lipids
Chair, 1993
Advisory Committee, 1993-present
Institute of Food Technologists
Annual Meeting Program Committee, 1981-1984
Chairperson to Scientific Sessions of Annual Meetings 1982, 1983
NY Section, Seminar Chair, 1984-1985
Keystone Symposia, “Cell Activation and Signal Transduction: Lipid Second Messengers IV,”
Organizer, 2000
Medical University of South Carolina, Department of Biochemistry and Molecular Biology,
External Advisory Board, Chair, 2002, 2005
National Institutes of Health
Biological Chemistry and Macromolecular Biophysics Study Section, Ad Hoc Member,
2009, 2008, Chair, 2006
Chemistry and Related Sciences Special Emphasis Panel, 1998, 2004
Physiological Chemistry Study Section, Member, 1988-1992, 1998-2002
Physiological Chemistry Study Section, Ad Hoc Member, 1984, 1986, 1987
Reviewers Reserve, 1992-1996
Special Topics in Biological Sciences Study Section, Chair, 2008

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Study Section Boundaries Team (for Biological Chemistry and Macromolecular Biophysics Integrated Review Groups), 2003
National Science Foundation: Review Panel for Research Experiences for Undergraduates, 1987
Phi Tau Sigma, President of Rutgers University Chapter, 1979-1981
Theobald Smith Society, NJ Branch of the American Society for Microbiology President, 1997-1998
President Elect and Program Chair, 1996-1997
Local Councilor, 1994-1996
Waksman Award Committee, 1999-2001, Chair 2000
University of Massachusetts, Food Microbiology Review Committee, 1980
USDA Northeast Regional Project NE-116, Chair, 1982-1984, Secretary, 1980-1982
Yeast Lipid Conference, Steering Committee, 2005-2009.

Service to Rutgers University:

University:

Biochemistry Task Force, 2007
Biological Sciences Area Committee (Graduate School), 1985-1988, 2003-2005
Biomedical Research Advisory Committee, 1987, 1994, 1997
Committee of Review (Graduate School), 2004-2005
Executive Committee (Graduate School), 1989-1990
External Review of University's Promotion Process, Cook College Representative, 1986
Faculty Grievance Committee, 1984-1985
Johnson and Johnson Discovery Awards Committee, 1997-1998
Joint Graduate Program in Biochemistry, Executive Committee, 1992-1993
Presidential Committee on Academic Planning and Review, 2008-20011
Presidential Committee on Standards and Priorities in Academic Development, 1998-2004

Cook College/School of Environmental and Biological Sciences:

Admissions and Scholastic Standing Committee, Chairman, 1983-1984, Member, 1979-1983
Appointments and Promotions Committee, Chairman, 1987-1988, 1991-1993
Cook College Seminar Program, Member, 1988-1989
Executive Dean's Advisory Committee, 1998-1999
Faculty Committee to Respond to Promotion Process Recommendations, Member, 1987
George H. Cook Honors Committee, Member, 1991-1992
Mentoring Committee, Department of Nutrition, 2005-present
Professor II Promotions Committee, 1997-1999, Chair 1998-1999, Chair 2001-2002, 2008-2009
Rules of Procedure Committee, Member, 2004-2006
Search Committee, Member, Executive Dean and Director of New Jersey Agricultural Experiment Station and Cook College, 1990
Search Committee, Member, Dean/Director of Research of Cook College, 1998-1999
Search Committee, Member, Chair of the Department of Nutritional Sciences, 2003
Search Committee, Member, Assistant Professor of Microbiology, 1998

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Search Committee, Member, Professor of Molecular Biology and Plant Pathology, 1992
Search Committee, Member, Director, New Jersey Institute of Food, Nutrition, and Health,
2007- 2008
Search Committee, Member, Cluster hiring initiative in Microbiology and Microbial
Biochemistry, 2008-2009

Department of Food Science:

Academic Integrity Committee, Chair, 2001-2009
Awards Committee, 1993-1994, 1996-2007, Chair, 2001-2005
Capital Campaign Committee, 2005-2007
Chair's Advisory Committee, 1988-1990
Chair's Graduate Program Advisory Committee, 2005-2007
Computing Infrastructure and Webpage, 2007-2008
Comprehensive Examination Committee, Chair, 1983-1985, 1989-1996
Coordinator of Undergraduate Advising, 2004-2007
Fiftieth Anniversary Committee, Chair, 1996
Graduate Program Membership Committee, Chair, 1994-1996
Graduate Scholarship Committee, 1983-1990
Graduate Student Academic Standards and Standing Committee, Chair, 1991-1994
Graduate Student Admissions Committee, 1978-1982, 1984-1989, 1997-1999
Isotope Laboratory Committee, 1979-1988
Library Reading Room Committee, 1996-1998
Long Range Planning Committee, 1979-1982
Mentoring Committee, 2000-present
New York Institutes of Food Technology Relations Committee, 1997-2003
Peer Evaluation Committee, Chair, 1999-2001, 2008, Member 2002, 2004-2007
Ph.D. Qualifying Examination Committee, 1978-present, Chair, 1985-1988, 1992-1996
Promotions Committee, Chair, 2007-2009
Public Relations Committee, 1982-1984, Chair, 1989
Research Instruments Committee, 1982-1984
Rutgers Food Science Alumni Society Committee, Member, 2004
Search Committee, Chair, Assistant Professor of Food Science, 1987
Search Committee, Chair, Assistant Professor of Food Science, 1999-2000
Search Committee, Chair, Assistant Professor of Food Science, 2001-2002
Search Committee, Coordinator of Four Search Committees for Assistant Professor of Food
Science, 1988
Search Committee, Member, Assistant Professor of Food Science, 2004
Search Committee, Member, Assistant Professor of Food Science, 2000
Search Committee, Member, Assistant Professor of Food Science, 1995
Search Committee, Member, Assistant Professor of Food Science, 1992
Search Committee, Member, Assistant Professor of Food Science, 1981
Search Committee, Member, Professor and Chairman of Food Science, 1986
Search Committee, Member, Professor, Center for Advanced Food Technology, 1987
Seminar Committee, Chair, 1981, 1987, 1997-1998, 2009
Space Committee, 1981-1982, 1984-1987, 2007-2008

GEORGE M. CARMAN

Strategic Issues Advisory and Department Policies Committee, 2005-2008

Teaching Committee, 1982-1988

Teaching Equipment Planning Committee, 1983-1984

Undergraduate Advisor to the Classes of 1992, 1994-2012

Undergraduate Enrollment Committee, 1982-1984

Community Service:

Cub Scouts, Troop 66, Den Leader, 1997-1999.

Boy Scouts, Troop 88, Merit badge councilor, 2007-2009, Troop committee, 2007-2009.

West Windsor Township, Basketball Coach, 1998, 1999, 2002, 2003, 2005-2007; Little League
Baseball Coach, 1995, 2001, 2003, 2004, 2007; Girls Softball Coach, 2000, Swimming
Official, 2002-2005.

West Windsor-Plainsboro School System, Science Inventors Judge, 1995; Math Partners,
development of mathematics curriculum, 1993

Refereed Publications:

1. Carman, G.M., and G.-S. Han. 2009. Regulation of phospholipid synthesis in yeast. *J. Lipid Res.* 50: S69-S73.
2. Carman, G.M., and G.-S. Han. 2009. Phosphatidic acid phosphatase, a key enzyme in the regulation of lipid synthesis. *J. Biol. Chem.* 284: 2593-2597.
3. Grimsey, N., G. S. Han, L. O' Hara, J. J. Rochford, G. M. Carman, and S. Siniosoglou. 2008. Temporal and spatial regulation of the phosphatidate phosphatases lipin 1 and 2. *J. Biol. Chem.* 283: 29166-29174.
4. Han, G.-S., L. O' Hara, G.M. Carman, and S. Siniosoglou. 2008. An unconventional diacylglycerol kinase that regulates phospholipid synthesis and nuclear membrane growth. *J. Biol. Chem.* 283: 20433-20442.
5. Han, G.-S., L. O' Hara, S. Siniosoglou, and G.M. Carman. 2008. Characterization of the yeast *DGK1*-encoded CTP-dependent diacylglycerol kinase. *J. Biol. Chem.* 283: 20443-20453.
6. Chang, Y.-F., and G.M. Carman. 2008. CTP synthetase and its role in phospholipid synthesis in the yeast *Saccharomyces cerevisiae*. *Prog. Lipid Res.* 47: 333-339.
7. Nadra, K., A.-S. de Preux Charles, J.-J. Médard, W.T. Hendriks, G.-S. Han, S. Grès, G.M. Carman, J.-S. Saulnier-Blache, M.H.G. Verheijen, and R. Chrast. 2008. Phosphatidic acid mediates demyelination in *Lpin1* mutant mice. *Genes Dev.* 22, 1647-1661.
8. Soto, A., and G.M. Carman. 2008. Regulation of the *Saccharomyces cerevisiae* *CKII*-encoded choline kinase by zinc depletion. *J. Biol. Chem.* 283: 10079-10088.
9. Havriluk, T., F. Lozy, S. Siniosoglou, and G.M. Carman. 2008. Colorimetric determination of pure Mg^{2+} -dependent phosphatidate phosphatase activity. *Anal. Biochem.* 373: 392-394.
10. Carman, G.M., and S.A. Henry. 2007. Phosphatidic acid plays a central role in the transcriptional regulation of glycerophospholipid synthesis in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 282: 37293-37297.
11. Han, G.-S., S. Siniosoglou, and G.M. Carman. 2007. The cellular functions of the yeast lipin homolog Pah1p are dependent on its phosphatidate phosphatase activity. *J. Biol. Chem.* 282: 37026-37035.
12. Carman, G.M., and W.-I. Wu. 2007. Lipid phosphate phosphatases from *Saccharomyces cerevisiae*. *Methods. Enzymol.* 434: 305-315.

13. Choi, H.-S., and G.M. Carman. 2007. Respiratory deficiency mediates the regulation of *CHO1*-encoded phosphatidylserine synthase by mRNA stability in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 282: 31217-31227.
14. Chang, Y.-F., S.S. Martin, E.P. Baldwin, and G.M. Carman. 2007. Phosphorylation of human CTP synthetase 1 by protein kinase C. Identification of Ser⁴⁶² and Thr⁴⁵⁵ as major sites of phosphorylation. *J. Biol. Chem.* 282: 17613-17622.
15. Choi, M.-G., and G.M. Carman. 2007. Phosphorylation of human CTP synthetase 1 by protein kinase A. Identification of Thr⁴⁵⁵ as a major site of phosphorylation. *J. Biol. Chem.* 282: 5367-5377.
16. Carman, G.M., and G.-S. Han. 2007. Regulation of phospholipid synthesis in *Saccharomyces cerevisiae* by zinc depletion. *Biochim. Biophys. Acta.* 1771: 322-330.
17. Carman, G.M., and G.-S. Han. 2006. Roles of phosphatidate phosphatase enzymes in lipid metabolism. *Trends Biochem. Sci.* 31: 694-699.
18. O'Hara, L., G.-S. Han, S. Peak-Chew, N. Grimsey, G.M. Carman, and S. Siniosoglou. 2006. Control of phospholipid synthesis by phosphorylation of the yeast lipin Pah1p/Smp2p Mg²⁺-dependent phosphatidate phosphatase. *J. Biol. Chem.* 281: 34537-34548.
19. Kersting, M.C., and G.M. Carman. 2006. Regulation of the *Saccharomyces cerevisiae* *EKII*-encoded ethanolamine kinase by zinc depletion. *J. Biol. Chem.* 281: 13110-13116.
20. Han, G.-S., W.-I. Wu, and G.M. Carman. 2006. The *Saccharomyces cerevisiae* lipin homolog is a Mg²⁺-dependent phosphatidate phosphatase enzyme. *J. Biol. Chem.* 281: 9210-9218.
21. Chang, Y.-F., and G.M. Carman. 2006. Casein kinase II phosphorylation of the yeast phospholipid synthesis transcription factor Opi1p. *J. Biol. Chem.* 281: 4754-4761.
22. Han, G.-S., A. Sreenivas, M.-G. Choi, Y.-F. Chang, S.S. Martin, E.P. Baldwin, and G.M. Carman. 2005. Expression of human CTP synthetase in *Saccharomyces cerevisiae* reveals phosphorylation by protein kinase A. *J. Biol. Chem.* 280: 38328-38336.
23. Carman, G. M. 2005. Regulation of phospholipid synthesis in yeast by zinc. *Biochem. Soc. Trans.* 33: 1150-1153.
24. Han, S.-H., G.-S. Han, W.M. Iwanyshyn, and G.M. Carman. 2005. Regulation of the *PIS1*-encoded phosphatidylinositol synthase in *Saccharomyces cerevisiae* by zinc. *J. Biol. Chem.* 280: 29017-29024.

25. Chang, F.S., G.-S. Han, G.M. Carman, and K.J. Blumer. 2005. A WASp-binding type II phosphatidylinositol 4-kinase is required for actin polymerization-dependent endosome motility. *J. Cell Biol.* 171: 133-142.
26. Choi, M.-G., V. Kurnov, M.C. Kersting, A. Sreenivas, and G.M. Carman. 2005. Phosphorylation of the yeast choline kinase by protein kinase C. Identification of Ser²⁵ and Ser³⁰ as major sites of phosphorylation. *J. Biol. Chem.* 280: 26105-26112.
27. Kersting, M.C., H.-S. Choi, and G.M. Carman. 2004. Regulation of the yeast *EKII*-encoded ethanolamine kinase by inositol and choline. *J. Biol. Chem.* 279: 35353-35359.
28. Iwanyshyn, W.M., G.-S. Han, and G.M. Carman. 2004. Regulation of phospholipid synthesis in *Saccharomyces cerevisiae* by zinc. *J. Biol. Chem.* 279: 21976-21983.
29. Choi, H.-S., A. Sreenivas, G.-S. Han, and G.M. Carman. 2004. Regulation of phospholipid synthesis in the yeast *cki1Δ eki1Δ* mutant defective in the Kennedy pathway. The *CHO1*-encoded phosphatidylserine synthase is regulated by mRNA stability. *J. Biol. Chem.* 279: 12081-12087.
30. Han, G.-S., C.N. Johnston, and G.M. Carman. 2004. Vacuole membrane topography of the *DPPI*-encoded diacylglycerol pyrophosphate phosphatase catalytic site from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 279: 5338-5345.
31. Carman, G.M., and M.C. Kersting. 2004. Phospholipid synthesis in yeast: regulation by phosphorylation. *Biochem. Cell Biol.* 82: 62-70.
32. Han, G.-S., and G.M. Carman. 2004. Assaying lipid phosphate phosphatase activities. *Methods Mol. Biol.* 284: 209-216.
33. Han, G.-S., and G.M. Carman. 2004. Phospholipid synthesis in yeast, in *Encyclopedia of Biological Chemistry* (W.J. Lennarz and M.D. Lane, eds), Elsevier, Oxford. 3: 321-325.
34. McEntire, J.C., G.M. Carman, and T.J. Montville. 2004. Increased ATPase activity is responsible for acid sensitivity of nisin-resistant *Listeria monocytogenes* ATCC 700302. *Appl. Environ. Microbiol.* 70: 2717-21.
35. Oshiro, J., G.-S. Han, and G.M. Carman. 2003. Diacylglycerol pyrophosphate phosphatase in *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 1635: 1-9.
36. Oshiro, J., G.-S. Han, W.M. Iwanyshyn, K. Conover, and G.M. Carman. 2003. Regulation of the yeast *DPPI*-encoded diacylglycerol pyrophosphate phosphatase by transcription factor Gis1p. *J. Biol. Chem.* 278: 31495-31503.
37. Choi, M.-G., T.-S. Park, and G.M. Carman. 2003. Phosphorylation of *Saccharomyces cerevisiae* CTP synthetase at Ser⁴²⁴ by protein kinases A and C regulates

- phosphatidylcholine synthesis by the CDP-choline pathway. *J. Biol. Chem.* 278: 23610-23616.
38. Sreenivas, A., and G.M. Carman. 2003. Phosphorylation of the yeast phospholipid synthesis regulatory protein Opi1p by protein kinase A. *J. Biol. Chem.* 278: 20673-20680.
 39. Park, T.-S., D.J. O'Brien, and G.M. Carman. 2003. Phosphorylation of CTP synthetase on Ser³⁶, Ser³³⁰, Ser³⁵⁴, and Ser⁴⁵⁴ regulates the levels of CTP and phosphatidylcholine synthesis in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 278: 20785-20794.
 40. Han, G.-S., A. Audhya, D.J. Markley, S.D. Emr, and G.M. Carman. 2002. The *Saccharomyces cerevisiae* *LSB6* gene encodes phosphatidylinositol 4-kinase activity. *J. Biol. Chem.* 277: 47709-47718.
 41. Yu, Y., A. Sreenivas, D.B. Ostrander, and G.M. Carman. 2002. Phosphorylation of *Saccharomyces cerevisiae* choline kinase on Ser³⁰ and Ser⁸⁵ by protein kinase A regulates phosphatidylcholine synthesis by the CDP-choline pathway. *J. Biol. Chem.* 277: 34978-34986.
 42. Sreenivas, A., M.J. Villa-Garcia, S.A. Henry, and G.M. Carman. 2001. Phosphorylation of the yeast phospholipid synthesis regulatory protein Opi1p by protein kinase C. *J. Biol. Chem.* 276: 29915-29923.
 43. Fernandez, F., J.S. Rush, D.A. Toke, G.-S. Han, J.E. Quinn, G.M. Carman, J.-Y. Choi, D.R. Voelker, M. Aebi, and C.J. Waechter. 2001. The *CWH8* gene encodes a dolichyl pyrophosphate phosphatase with a lumenally oriented active site in the endoplasmic reticulum of *Saccharomyces cerevisiae*. *J. Biol. Chem.* 2001 276: 41455-41464.
 44. Han, G.-S., C.N. Johnston, X. Chen, K. Athenstaedt, G. Daum, and G.M. Carman. 2001. Regulation of the *Saccharomyces cerevisiae* *DPPI*-encoded diacylglycerol pyrophosphate phosphatase by zinc. *J. Biol. Chem.* 276: 10126-10133.
 45. Pierrugues, O., C. Brutesco, J. Oshiro, M. Gouy, Y. Deveaux, G.M. Carman, P. Thuriaux, and M. Kazmaier. 2001. Lipid phosphate phosphatases in *Arabidopsis*. Regulation of *AtLPP1* in response to stress. *J. Biol. Chem.* 276: 20300-20308.
 46. Yu, Y., H.H. Mu, B.P. Wasserman, and G.M. Carman. 2001. Identification of the maize amyloplast stromal 112-kD protein as a plastidic starch phosphorylase. *Plant Physiol.* 125: 351-359.
 47. Mu, H.H., Y. Yu, B.P. Wasserman, and G.M. Carman. 2001. Purification and characterization of the maize amyloplast stromal 112-kD starch phosphorylase. *Arch. Biochem. Biophys.* 388: 155-164.
 48. Furneisen, J.M., and G.M. Carman. 2000. Enzymological properties of the *LPP1*-encoded lipid phosphatase from *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 1484: 71-82.

49. Shih, C., G.M. Carman, and B.P. Wasserman. 2000. Ripening-associated proteolysis of a 27-kDa major intrinsic protein (MIP27) in tomato fruit. *J. Food Biochem.* 24: 213-224.
50. Wu, W.-I., and G.M. Carman. 2000. Kinetic analysis of sphingoid base inhibition of yeast phosphatidate phosphatase. *Methods Enzymol.* 312: 373-380.
51. Oshiro, J., S. Rangaswamy, X. Chen, G.-S. Han, J.E. Quinn, and G.M. Carman. 2000. Regulation of the *DPP1*-encoded diacylglycerol pyrophosphate (DGPP) phosphatase by inositol and growth phase. Inhibition of DGPP phosphatase activity by CDP-diacylglycerol and activation of phosphatidylserine synthase activity by DGPP. *J. Biol. Chem.* 275: 40887-40896.
52. Balboa, M.A., J. Balsinde, D.A. Dillon, G.M. Carman, and E.A. Dennis. 1999. Proinflammatory macrophage-activating properties of the novel phospholipid diacylglycerol pyrophosphate. *J. Biol. Chem.* 274: 522-526.
53. Kim, K.-H., and G.M. Carman. 1999. Phosphorylation and regulation of choline kinase from *Saccharomyces cerevisiae* by protein kinase A. *J. Biol. Chem.* 274: 9531-9538.
54. Kent, C., and G.M. Carman. 1999. Interactions among pathways for phosphatidylcholine metabolism, CTP synthesis and secretion through the Golgi apparatus. *Trends Biochem. Sci.* 24: 146-150.
55. Faulkner, A., X. Chen, J. Rush, B. Horazdovsky, C.J. Waechter, G.M. Carman, and P.C. Sternweis. 1999. The *LPPI* and *DPP1* gene products account for most of the isoprenoid phosphate phosphatase activities in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 274: 14831-14837.
56. Kim, K., K.-H. Kim, M.K. Storey, D.R. Voelker, and G.M. Carman. 1999. Isolation and characterization of the *Saccharomyces cerevisiae* *EKII* gene encoding ethanolamine kinase. *J. Biol. Chem.* 274: 14857-14866.
57. Jasinska, R., Q.-X. Zhang, C. Pilquill, I. Singh, J. Xu, J. Dewald, D.A. Dillon, L.G. Berthiaume, G.M. Carman, D.W. Waggoner, and D.N. Brindley. 1999. Lipid phosphate phosphohydrolase-1 degrades exogenous glycerolipid and sphingolipid phosphate esters. *Biochem. J.* 340: 677-686.
58. Park, T.-S., D.B. Ostrander, A. Pappas, and G.M. Carman. 1999. Identification of Ser⁴²⁴ as the protein kinase A phosphorylation site in CTP synthetase from *Saccharomyces cerevisiae*. *Biochemistry* 38: 8839-8848.
59. Toke, D.A., M.L. McClintick, and G. M. Carman. 1999. Mutagenesis of the phosphatase sequence motif in diacylglycerol pyrophosphate phosphatase from *Saccharomyces cerevisiae*. *Biochemistry* 38: 14606-14613.

60. Carman, G.M. and S.A. Henry. 1999. Phospholipid biosynthesis in the yeast *Saccharomyces cerevisiae* and interrelationship with other metabolic processes. *Prog. Lipid Res.* 38: 361-399.
61. Pappas, A., T.-S. Park, and G.M. Carman. 1999. Characterization of a novel dUTP-dependent activity of CTP synthetase from *Saccharomyces cerevisiae*. *Biochemistry* 38: 16671-16677.
62. Toke, D.A., W. L. Bennett, D. A. Dillon, W.-I. Wu, X. Chen, D.B. Ostrander, J. Oshiro, A. Cremesti, D.R. Voelker, A.S. Fischl, and G.M. Carman. 1998. Isolation and characterization of the *Saccharomyces cerevisiae* *DPP1* gene encoding diacylglycerol pyrophosphate phosphatase. *J. Biol. Chem.* 273: 3278-3284.
63. Kim, K.-H., D.R. Voelker, M.T. Flocco, and G.M. Carman. 1998. Expression, purification, and characterization of choline kinase, product of the *CKI* gene from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 273: 6844-6852.
64. Toke, D.A., W.L. Bennett, J. Oshiro, W.-I. Wu, D.R. Voelker, and G.M. Carman. 1998. Isolation and characterization of the *Saccharomyces cerevisiae* *LPP1* gene encoding a Mg^{2+} -independent phosphatidate phosphatase. *J. Biol. Chem.* 273: 14331-14338.
65. Pappas, A., W.-L. Yang, T.-S. Park, and G.M. Carman. 1998. Nucleotide-dependent tetramerization of CTP synthetase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 273: 15954-15960.
66. Ostrander, D.B., D.J. O'Brien, J.A. Gorman, and G.M. Carman. 1998. Effect of CTP synthetase regulation by CTP on phospholipid synthesis in *Saccharomyces cerevisiae*. *J. Biol. Chem.* 273: 18992-19001.
67. Stukey, J., and G.M. Carman. 1997. Identification of a novel phosphatase sequence motif. *Protein Science.* 6: 469-472.
68. Dillon, D.A., X. Chen, G.M. Zeimet, W.-I. Wu, D.W. Waggoner, J. Dewald, D.N. Brindley, and G.M. Carman. 1997. Mammalian Mg^{2+} -independent phosphatidate phosphatase (PAP2) displays diacylglycerol pyrophosphate phosphatase activity. *J. Biol. Chem.* 272: 10361-10366.
69. Carman, G.M. 1997. Phosphatidate phosphatases and diacylglycerol pyrophosphate phosphatases in *Saccharomyces cerevisiae* and *Escherichia coli*. *Biochim. Biophys. Acta.* 1348: 45-55.
70. Riedel, B., M. Morr, W.-I. Wu, G.M. Carman, J.B. Wissing. 1997. Metabolism of diacylglycerol pyrophosphate by suspension cultured *Catharanthus roseus* cells. Identification and characterization of diacylglycerol pyrophosphate phosphatase in plants. *Plant Sci.* 128: 1-10.

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71. Wu, W.-I., Y. Liu, B. Riedel, J.B. Wissing, A.S. Fischl, and G.M. Carman. 1996. Purification and characterization of diacylglycerol pyrophosphate phosphatase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 271: 1868-1876.
72. Wu, W.-I., and G.M. Carman. 1996. Regulation of phosphatidate phosphatase activity from the yeast *Saccharomyces cerevisiae* by phospholipids. *Biochemistry.* 35: 3790-3796.
73. Yang, W.-L., M.E.C. Bruno, and G.M. Carman. 1996. Regulation of yeast CTP synthetase activity by protein kinase C. *J. Biol. Chem.* 271: 11113-11119.
74. Carman, G.M., and G.M. Zeimet. 1996. Regulation of phospholipid biosynthesis in the yeast *Saccharomyces cerevisiae*. *J. Biol. Chem.* 271: 13292-13296.
75. Carman, G.M., R.J. Buxeda, and J.T. Nickels, Jr. 1996. Phosphatidylinositol 4-kinases in *Saccharomyces cerevisiae* in *Advances in Lipobiology* (Gross, R.W., ed.). Jai Press. Greenwich CT. 367-385.
76. Yang, W.-L., and G.M. Carman. 1996. Phosphorylation and regulation of CTP synthetase from *Saccharomyces cerevisiae* by protein kinase A. *J. Biol. Chem.* 271: 28777-28783.
77. Dillon, D.A., W.-I. Wu, B. Riedel, J.B. Wissing, W. Dowhan, and G.M. Carman. 1996. The *Escherichia coli* *pgpB* gene encodes for a diacylglycerol pyrophosphate phosphatase activity. *J. Biol. Chem.* 271: 30548-30553.
78. Wu, W.-I., V.M. McDonough, J.T. Nickels, Jr., J. Ko, A.S. Fischl, T.R. Vales, A.H. Merrill, Jr. and G.M. Carman. 1995. Regulation of lipid biosynthesis in *Saccharomyces cerevisiae* by Fumonisin B₁. *J. Biol. Chem.* 270: 13171-13178.
79. Yang, W.-L., and G.M. Carman. 1995. Phosphorylation of CTP synthetase from *Saccharomyces cerevisiae* by protein kinase C. *J. Biol. Chem.* 270: 14983-14988.
80. McDonough, V.M., R.J. Buxeda, M.E.C. Bruno, O. Ozier-Kalogeropoulos, M.-T. Adeline, C.R. McMaster, R.M. Bell, and G.M. Carman. 1995. Regulation of phospholipid biosynthesis in *Saccharomyces cerevisiae* by CTP. *J. Biol. Chem.* 270: 18774-18780.
81. Carman, G.M., R.A. Deems, and E.A. Dennis. 1995. Lipid signaling enzymes and surface dilution kinetics. *J. Biol. Chem.* 270: 18711-18714.
82. Nadkarni, A.K., V.M. McDonough, W.-L. Yang, J.E. Stuke, O. Ozier-Kalogeropoulos, and G.M. Carman. 1995. Differential biochemical regulation of the *URA7*- and *URA8*-encoded CTP synthetases from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 270: 24982-24988.
83. Ostrander, D.B., J.A. Gorman, and G.M. Carman. 1995. Regulation of profilin localization in *Saccharomyces cerevisiae* by phosphoinositide metabolism. *J. Biol. Chem.* 270: 27045-27050.

84. Ozier-Kalogeropoulos, O., M.-T. Adeline, W.-L. Yang, G.M. Carman, and F. Lacroute. 1994. Use of synthetic lethal mutants to clone and characterize a novel CTP synthetase gene in *Saccharomyces cerevisiae*. *Mol. Gen. Genet.* 242: 431-439.
85. Nickels, J.T. Jr., R.J. Buxeda, and G.M. Carman. 1994. Regulation of phosphatidylinositol 4-kinase from the yeast *Saccharomyces cerevisiae* by CDP-diacylglycerol. *J. Biol. Chem.* 269: 11019-11024.
86. Yang, W.-L., V.M. McDonough, O. Ozier-Kalogeropoulos, M.-T. Adeline, M.T. Flocco, and G.M. Carman. 1994. Purification and characterization of CTP synthetase, the product of the *URA7* gene in *Saccharomyces cerevisiae*. *Biochemistry* 33: 10785-10793.
87. Wu, W.-I., and G.M. Carman. 1994. Regulation of phosphatidate phosphatase activity from the yeast *Saccharomyces cerevisiae* by nucleotides. *J. Biol. Chem.* 269: 29495-29501.
88. Buxeda, R.J., J.T. Nickels, Jr., and G.M. Carman. 1993. Regulation of the 45- and 55-kDa forms of phosphatidylinositol 4-kinase from the yeast *Saccharomyces cerevisiae* by nucleotides. *J. Biol. Chem.* 268: 6248-6255.
89. Wu, W.-I., Y.-P. Lin, E. Wang, A.H. Merrill, Jr., and G.M. Carman. 1993. Regulation of phosphatidate phosphatase activity from the yeast *Saccharomyces cerevisiae* by sphingoid bases. *J. Biol. Chem.* 268: 13830-13837.
90. Nickels, J.T., Jr., and G.M. Carman. 1993. Photoaffinity labeling of the 45-kDa and 55-kDa forms of phosphatidylinositol 4-kinase from the yeast *Saccharomyces cerevisiae*. *J. Biol. Chem.* 268: 24083-24088.
91. Quinlan, J.J., J.T. Nickels Jr., W.-I. Wu, Y.-P. Lin, J.R. Broach, and G.M. Carman. 1992. The 45-kDa and 104-kDa forms of phosphatidate phosphatase from *Saccharomyces cerevisiae* are regulated differentially by phosphorylation via cAMP-dependent protein kinase. *J. Biol. Chem.* 267: 18013-18020.
92. Nickels, J.T. Jr., R.J. Buxeda, and G.M. Carman. 1992. Purification, characterization, and kinetic analysis of a 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 267: 16297-16304.
93. Carman, G.M., and M. Bae-Lee. 1992. Phosphatidylserine synthase from yeast. *Methods Enzymol.* 209: 298-305.
94. Carman, G.M., C.J. Belunis, and J.T. Nickels. 1992. Phosphatidylinositol 4-kinase from yeast. *Methods Enzymol.* 209: 183-189.
95. Carman, G.M., and A.S. Fischl. 1992. Phosphatidylinositol synthase from yeast. *Methods Enzymol.* 209: 305-312.

96. Carman, G.M., and M.J. Kelley. 1992. CDPdiacylglycerol synthase from yeast. *Methods Enzymol.* 209: 242-247.
97. Carman, G.M., and J.J. Quinlan. 1992. Phosphatidate phosphatase from yeast mitochondria. *Methods Enzymol.* 209: 219-224.
98. Morlock, K.R., J.J. McLaughlin, Y.-P. Lin, and G.M. Carman. 1991. Phosphatidate phosphatase from *Saccharomyces cerevisiae*. Isolation of 45-kDa and 104-kDa forms of the enzyme that are differentially regulated by inositol. *J. Biol. Chem.* 266: 3586-3593.
99. Buxeda, R.J., J.T. Nickels, Jr., C.J. Belunis, and G.M. Carman. 1991. Phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. Kinetic analysis using Triton X-100/phosphatidylinositol mixed micelles. *J. Biol. Chem.* 266: 13859-13865.
100. Kent, C., G.M. Carman, M.W. Spence, and W. Dowhan. 1991. Regulation of eukaryotic phospholipid metabolism. *FASEB J.* 5: 2258-2266.
101. Gaynor, P.M., T. Gill, S. Toutenhoofd, E.F. Summers, P. McGraw, M.J. Homann, S.A. Henry, and G.M. Carman. 1991. Regulation of phosphatidylethanolamine methyltransferase and phospholipid methyltransferase by phospholipid precursors in *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 1090: 326-332.
102. Carman, G.M., and Y.-P. Lin. 1991. Phosphatidate phosphatase from yeast. *Methods Enzymol.* 197: 548-553.
103. Lin, Y.-P., and G.M. Carman. 1990. Kinetic analysis of yeast phosphatidate phosphatase toward Triton X-100/phosphatidate mixed micelles. *J. Biol. Chem.* 265: 166-170.
104. Kinney, A.J., M. Bae-Lee, S. Singh Panghaal, M.J. Kelley, P. M. Gaynor, and G.M. Carman. 1990. Regulation of phospholipid biosynthesis in *Saccharomyces cerevisiae* by cyclic AMP- dependent protein kinase. *J. Bacteriol.* 172: 1133-1136.
105. Gaynor, P.M., and G.M. Carman. 1990. Phosphatidylethanolamine methyltransferase and phospholipid methyltransferase activities from *Saccharomyces cerevisiae*. Enzymological and kinetic properties. *Biochim. Biophys. Acta* 1045:156-163.
106. Bae-Lee, M., and G.M. Carman. 1990. Regulation of yeast phosphatidylserine synthase and phosphatidylinositol synthase activities by phospholipids in Triton X-100/phospholipid mixed micelles. *J. Biol. Chem.* 265: 7221-7226.
107. Kinney, A.J., and G.M. Carman. 1990. Enzymes of phosphoinositide synthesis in secretory vesicles destined for the plasma membrane in *Saccharomyces cerevisiae*. *J. Bacteriol.* 172: 4115-4117.

108. Lin, Y.-P., and G.M. Carman. 1989. Purification and characterization of phosphatidate phosphatase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 264: 8641-8645.
109. Carman, G.M., and S.A. Henry. 1989. Phospholipid biosynthesis in yeast. *Ann. Rev. Biochem.* 58: 635-669.
110. Radcliffe, C.W., F.X. Steiner, G.M. Carman, and R.A. Niederman. 1989. Characterization and localization of phosphatidylglycerophosphate and phosphatidylserine synthases in *Rhodobacter sphaeroides*. *Arch. Microbiol.* 152: 132-137.
111. Bonnel, S.I., Y.-P. Lin, M.J. Kelley, G.M. Carman, and J. Eichberg. 1989. Interaction of thiophosphatidic acid with enzymes which metabolize phosphatidic acid. Inhibition of phosphatidic acid phosphatase and utilization by CDP- diacylglycerol synthase. *Biochim. Biophys. Acta* 1005: 289- 295.
112. Carman, G.M. 1989. Phosphatidylcholine metabolism in *Saccharomyces cerevisiae*. In *Phosphatidylcholine metabolism* (Vance, D.E., ed.), CRC Press, Inc. Boca Raton, FL. 165-184.
113. Holland, K.M., M.J. Homann, C.J. Belunis, and G.M. Carman. 1988. Regulation of phosphatidylinositol kinase activity in *Saccharomyces cerevisiae*. *J. Bacteriol.* 170: 828-833.
114. Klig, L.S., M.J. Homann, S.D. Kohlwein, M.J. Kelley, S.A. Henry, and G.M. Carman. 1988. *Saccharomyces cerevisiae* mutant with a partial defect in the synthesis of CDP-diacylglycerol and altered regulation of phospholipid biosynthesis. *J. Bacteriol.* 170: 1878-1886.
115. Morlock, K.R., Y.-P. Lin, and G.M. Carman. 1988. Regulation of phosphatidate phosphatase activity by inositol in *Saccharomyces cerevisiae*. *J. Bacteriol.* 170: 3561-3566.
116. Kelley, M.J., A.M. Bailis, S.A. Henry, and G.M. Carman. 1988. Regulation of phospholipid biosynthesis in *Saccharomyces cerevisiae* by inositol. Inositol is an inhibitor of phosphatidylserine synthase activity. *J. Biol. Chem.* 263: 18078-18085.
117. Kinney, A.J., and G.M. Carman. 1988. Phosphorylation of yeast phosphatidylserine synthase *in vivo* and *in vitro* by cyclic AMP-dependent protein kinase. *Proc. Natl. Acad. Sci.* 85: 7962-7966.
118. Belunis, C.J., M. Bae-Lee, M.J. Kelley, and G.M. Carman. 1988. Purification and characterization of phosphatidylinositol kinase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 263: 18897-18903.

119. Bailis, A.M., M.A. Poole, G.M. Carman, and S.A. Henry. 1987. The membrane-associated enzyme phosphatidylserine synthase of yeast is regulated at the level of mRNA abundance. *Mol. Cell. Biol.* 7: 167-176.
120. Homann, M.J. M.A. Poole, P.M. Gaynor, C.-T. Ho, and G.M. Carman. 1987. Effect of growth phase on phospholipid biosynthesis in *Saccharomyces cerevisiae*. *J. Bacteriol.* 169: 533-539.
121. Homann, M.J., A.M. Bailis, S.A. Henry, and Carman, G.M. 1987. Coordinate regulation of phospholipid biosynthesis by serine in *Saccharomyces cerevisiae*. *J. Bacteriol.* 169: 3276-3280.
122. Raetz, C.R.H., Carman, G.M., Dowhan, W., Jiang, R-T., Waszkuc, W., Loffredo, W., and Tsai, M-D. 1987. Phospholipids chiral at phosphorus. Steric course of the reactions catalyzed by phosphatidylserine synthase from *Escherichia coli* and yeast. *Biochemistry* 26: 4022-4027.
123. Kelley, M.J., and G.M. Carman. 1987. Purification and characterization of CDPdiacylglycerol synthase from *Saccharomyces cerevisiae*. *J. Biol. Chem.* 262: 14563-14570.
124. Fischl, A.S., M.J. Homann, M.A. Poole, and G.M. Carman. 1986. Phosphatidylinositol synthase from *Saccharomyces cerevisiae*. Reconstitution, characterization, and regulation of activity. *J. Biol. Chem.* 261: 3178-3183.
125. Poole, M.A., M.J. Homann, M. Bae-Lee, and G.M. Carman. 1986. Regulation of phosphatidylserine synthase from *Saccharomyces cerevisiae* by phospholipid precursors. *J. Bacteriol.* 168: 668-672.
126. Fernandez, S., M.J. Homann, S.A. Henry, and G.M. Carman. 1986. Metabolism of the phospholipid precursor inositol and its relationship to growth and viability in the natural auxotroph *Schizosaccharomyces pombe*. *J. Bacteriol.* 166: 779-786.
127. Hromy, J.M., and G.M. Carman. 1986. Reconstitution of *Saccharomyces cerevisiae* phosphatidylserine synthase into phospholipid vesicles. Modulation of activity by phospholipids. *J. Biol. Chem.* 261: 15572-15576.
128. Henry, S.A., D. Hoshizaki, A. Bailis, M.J. Homann, and G.M. Carman. 1986. Genetic regulation of phospholipid synthesis in yeast. In *Enzymes of lipid metabolism II. Proceedings of the CNRS-INSERM International Symposium and Nato Workshop.* (Freysz, L., H. Dreyfus, R. Massarelli, and S. Gatt, eds.), Plenum Publishing Corp., New York, NY. 623-632.
129. Page, G.V., M. Solberg, and G.M. Carman. 1985. Nitrite reductase in *Salmonella typhimurium*. *J. Food Safety* 7: 1-13.

130. Klig, L.S., M.J. Homann, G.M. Carman, and S.A. Henry. 1985. Coordinate regulation of phospholipid biosynthesis in *Saccharomyces cerevisiae*: pleiotropically constitutive *opi1* mutant. *J. Bacteriol.* 162: 1135-1141.
131. Poole, M.A., A.S. Fischl, and G.M. Carman. 1985. Enzymatic detection of phospholipid biosynthetic enzymes after electroblotting. *J. Bacteriol.* 161: 772-774.
132. Cirigliano, M.C., and G.M. Carman. 1985. Purification and characterization of Liposan, a bioemulsifier from *Candida lipolytica*. *Appl. Environ. Microbiol.* 50: 846-850.
133. Homann, M.J., S.A. Henry, and G.M. Carman. 1985. Regulation of CDP-diacylglycerol synthase activity in *Saccharomyces cerevisiae*. *J. Bacteriol.* 163: 1265-1266.
134. Carman, G.M., and A.S. Greenberg. 1984. Membrane-associated phosphatidylglycerophosphate synthase from germinating soybeans. *J. Food Biochem.* 8: 321-333.
135. Bae-Lee, M., and G.M. Carman. 1984. Phosphatidylserine synthesis in *Saccharomyces cerevisiae*. Purification and characterization of membrane-associated phosphatidylserine synthase. *J. Biol. Chem.* 259: 10857-10862.
136. Cirigliano, M.C., and G.M. Carman. 1984. Isolation of a bioemulsifier from *Candida lipolytica*. *Appl. Environ. Microbiol.* 48: 747-750.
137. Fischl, A.S., and G.M. Carman. 1983. Phosphatidylinositol biosynthesis in *Saccharomyces cerevisiae*: purification and properties of microsome-associated phosphatidylinositol synthase. *J. Bacteriol.* 154: 304-311.
138. McKenzie, M.A., and G.M. Carman. 1983. Membrane-associated phosphatidylinositol kinase from *Saccharomyces cerevisiae*. *J. Bacteriol.* 156: 421-423.
139. Letts, V.A., L.S. Klig, M. Bae-Lee, G.M. Carman, and S.A. Henry. 1983. Isolation of the yeast structural gene for the membrane-associated enzyme; phosphatidylserine synthase. *Proc. Natl. Acad. Sci.* 80: 3715-3720.
140. Carman, G.M., and C.J. Belunis. 1983. Phosphatidylglycerophosphate synthase activity in *Saccharomyces cerevisiae*. *Can. J. Microbiol.* 29: 1452-1457.
141. Cirigliano, M.S., and G.M. Carman. 1983. A plating technique for the selective isolation of yeast utilizing water immiscible carbon. *J. Food Sci.* 48: 1554-1555.
142. Homann, M.J., and G.M. Carman. 1983. Detection of phospholipid biosynthetic enzyme activities in *Saccharomyces cerevisiae* by colony autoradiography. *Anal. Biochem.* 135: 447-452.

143. Robinson, M.L., and G.M. Carman. 1982. Solubilization of microsomal-associated phosphatidylinositol synthase from germinating soybeans. *Plant Physiol.* 69: 146-149.
144. Carman, G.M., R.L. Zaniewski, and J.J. Cousminer. 1982. CDP- diacylglycerol synthase activity in *Clostridium perfringens*. *Appl. Environ. Microbiol.* 43: 81-85.
145. McKenzie, M.A., and G.M. Carman. 1982. Solubilization of membrane-associated phosphatidylinositol kinase from *Saccharomyces cerevisiae*. *J. Food Biochem.* 6: 77-86.
146. Cousminer, J.J., A.S. Fischl, and G.M. Carman. 1982. Partial purification and properties of phosphatidylserine synthase from *Clostridium perfringens*. *J. Bacteriol.* 151: 1372-1379.
147. Carman, G.M., G.F. Harrington, and R. Amegah. 1981. Microsomal- associated glycerolphosphate acyltransferase activity in germinating soybeans. *J. Food Biochem.* 5: 185-195.
148. Carman, G.M., and J. Matas. 1981. Solubilization of microsomal-associated phosphatidylserine synthase and phosphatidylinositol synthase from *Saccharomyces cerevisiae*. *Can. J. Microbiol.* 27: 1140-1149.
149. Carman, G.M., A.S. Fischl, M. Dougherty, and G. Maerker. 1981. A spectrophotometric method for the assay of phospholipase D activity. *Anal. Biochem.* 110: 73-76.
150. Cousminer, J.J., and G.M. Carman. 1981. Solubilization of membrane-associated phosphatidylserine synthase from *Clostridium perfringens*. *Can. J. Microbiol.* 27: 544-546.
151. Carman, G.M., and D.S. Wieczorek. 1980. Phosphatidylglycerophosphate synthase and phosphatidylserine synthase activities in *Clostridium perfringens*. *J. Bacteriol.* 142: 262-267.
152. Carman, G.M., and A.S. Fischl. 1980. Modification of the Agranoff-Suomi method for the synthesis of CDP- diacylglycerol. *J. Food Biochem.* 4: 53-59.
153. Carman, G.M., and M. Dougherty. 1980. Kinetic properties of phosphatidylinositol synthase from germinating soybeans. *J. Food Biochem.* 4: 147-152.
154. Carman, G.M., and M. Dougherty. 1980. Subcellular localization of phosphatidylinositol synthase from germinating soybeans. *J. Food Biochem.* 4: 153-158.
155. Carman, G.M., R. Amegah, and J. Matas. 1980. Mitochondrial- associated CDP- diacylglycerol synthase activity in germinating soybeans. *J. Food Biochem.* 4: 261-272.
156. Carman, G.M., and W. Dowhan. 1979. Phosphatidylserine synthase of *Escherichia coli*. The role of Triton X-100 in catalysis. *J. Biol. Chem.* 254: 8391-8397.

GEORGE M. CARMAN

157. Carman, G.M., and S.M. Felder. 1979. A phosphatidylinositol synthase activity from germinating soybean seeds. *J. Food Biochem.* 3: 89-102.
158. Carman, G.M., and W. Dowhan. 1978. A spectrophotometric method for the assay of cytidine 5'diphospho-1,2-diacyl-sn- glycerol dependent enzymes of phospholipid metabolism. *J. Lipid Res.* 19: 519-522.
159. Carman, G.M., and R.E. Levin. 1977. Partial purification and some properties of tyrosine phenol-lyase from *Aeromonas phenologenes* ATCC 29063. *Appl. Environ. Microbiol.* 33: 192-198.
160. Carman, G.M., and R.E. Levin. 1977. Characteristics of tyrosine phenol-lyase from *Aeromonas phenologenes* ATCC 29063. *J. Food Biochem.* 1: 285-299.

Presentations at National/International Meetings:

1. Carman, G.M. 2009. Regulation of phosphatidic acid phosphatase. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
2. Choi, H.-S., G.-S. Han, and G.M. Carman. 2009. Phosphorylation of yeast phosphatidylserine synthase by protein kinase A. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
3. Han, G.-S., and G.M. Carman. 2009. Characterization of the human LPIN1-encoded phosphatidate phosphatase isoforms. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
4. Su, W.-M., G.-S. Han, and G.M. Carman. 2009. Phosphorylation of yeast phosphatidate phosphatase by protein kinase C. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
5. Fakas, S., and G.M. Carman. 2009. Diacylglycerol kinase plays a role in yeast cells resuming growth from stationary phase. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
6. Pascual, F., A. Soto-Cardalda, and G.M. Carman. 2009. Transcriptional regulation of the yeast *PAH1* gene. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
7. Soto-Cardalda, A., and G.M. Carman. 2009. Posttranslational regulation of the yeast *PAH1*-encoded phosphatidate phosphatase. Am. Soc. Biochem. Mol. Biol.
8. Pascual, F., and G.M. Carman. 2009. Transcriptional regulation of the yeast *PAH1* gene. Am. Soc. Biochem. Mol. Biol.
9. Su, W.-M., G.-S. Han and G.M. Carman. 2009. Phosphorylation of yeast phosphatidate phosphatase by protein kinase C. Am. Soc. Biochem. Mol. Biol.
10. Morgan, J.M., and G.M. Carman. 2009. Cyclin-dependent kinase-mediated phosphorylation of yeast phosphatidate phosphatase. Am. Soc. Biochem. Mol. Biol.
11. Choi, H.-S., and G.M. Carman. 2009. Phosphorylation of yeast phosphatidylserine synthase by protein kinase A. Am. Soc. Biochem. Mol. Biol.
12. Carman, G.M. 2008. Phosphatidic acid signaling in yeast. FASEB Res. Conf. Phospholipid metabolism: disease, signal transduction, and membrane dynamics.
13. Han, G.-S., and G.M. Carman. 2008. The G80R mutation in the yeast lipin homolog Pah1p abolishes phosphatidate phosphatase activity. Am. Soc. Biochem. Mol. Biol.
14. Morgan, J., and G.M. Carman. 2008. Phosphorylation of the yeast lipin homolog Pah1p by Cdc28p kinase. Am. Soc. Biochem. Mol. Biol.

15. Pascual, F., and G.M. Carman. 2008. Regulation of the yeast *PAH1* gene encoding Mg²⁺-dependent phosphatidate phosphatase. *Am. Soc. Biochem. Mol. Biol.*
16. Montero-Moran, G., Y.-F. Chang, G.M. Carman, and D.L. Brasaemle. 2008. Mouse CGI-58 is phosphorylated by protein kinase A on Ser²³⁹. *Keystone Symposia on Adipogenesis and Obesity.*
17. Carman, G.M. 2007. Roles of phosphatidic acid phosphatase in the regulation of fat metabolism. *Gordon Res. Conf. Mol. Cell. Biol. Lipids.*
18. Choi, H.-S., and G.M. Carman. 2007. Regulation of phospholipid biosynthesis by mRNA stability in *Saccharomyces cerevisiae*. *Gordon Res. Conf. Mol. Cell. Biol. Lipids.*
19. Soto, A., and G.M. Carman. 2007. The *CKII*-encoded choline kinase is regulated by zinc depletion in *Saccharomyces cerevisiae*. *Gordon Res. Conf. Mol. Cell. Biol. Lipids.*
20. Carman, G.M. 2007. Roles of phosphatidate phosphatase in the regulation of lipid metabolism. 8th Yeast Lipid Conf. (Torino, Italy)
21. Han, S.-H., and G.M. Carman. 2007. Purification of NEM-sensitive Mg²⁺-dependent phosphatidate phosphatase from yeast. *Am. Soc. Biochem. Mol. Biol.*
22. Havriluk, T., F. Lozy, and G.M. Carman. 2007. A colorimetric method for the assay of phosphatidate phosphatase activity. *Am. Soc. Biochem. Mol. Biol.*
23. Han, G.-S., and G.M. Carman. 2007. Characterization of the human lipin 1 phosphatidate phosphatase activity. *Am. Soc. Biochem. Mol. Biol.*
24. Carman, G.M. 2006. Regulation of the yeast Mg²⁺-dependent phosphatidate phosphatase in response to nutrient deprivation. 47th Intern. Conf. Biosci. Lipids. (Pécs, Hungary)
25. Choi, H.-S., and G.M. Carman. 2006. *EKII*-dependent regulation of phospholipid synthesis by mRNA stability. *Am. Soc. Biochem. Mol. Biol.*
26. Soto, A., and G.M. Carman. 2006. Zinc-mediated regulation of the *CKII*-encoded choline kinase from yeast. *Am. Soc. Biochem. Mol. Biol.*
27. Chang, Y.-F., and G.M. Carman. 2006. Protein kinase C-mediated phosphorylation of human CTP synthetase. *Am. Soc. Biochem. Mol. Biol.*
28. Han, G.-S., J. Walker, D.J. Eide, and G.M. Carman. 2006. Phospholipid synthesis and zinc transport in yeast. *Am. Soc. Biochem. Mol. Biol.*
29. Choi, M.-G., and G.M. Carman. 2006. Protein kinase A-mediated phosphorylation of human CTP synthetase. *Am. Soc. Biochem. Mol. Biol.*

30. Carman, G.M. 2006. Regulation of phospholipid synthesis by zinc. Am. Soc. Biochem. Mol. Biol.
31. Han, G.-S., and G.M. Carman. 2005. Functional expression of the human CTP synthetase enzymes in yeast. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
32. Kersting, M.C., and G.M. Carman. 2005. Regulation of the yeast *EKII*-encoded ethanolamine kinase by zinc deprivation. Gordon Res. Conf. Mol. Cell. Biol. Lipids.
33. Elswaifi, S., C. Kuckleburg, A. Sreenivas, G. Carman, A. Cox, K. Scarratt, C. Czuprynski, and T. J. Inzana. 2005. Molecular and genetic expression of phosphorylcholine on *Histophilus somni* lipooligosaccharide: A phase variable virulence factor. Am. Soc. Microbiol. Conf. Pasteurellaceae.
34. Carman, G.M., G.-S. Han, S.-H. Han, and W.M. Iwanyshyn. 2005. Regulation of the *PIS1*-encoded phosphatidylinositol synthase in yeast by zinc depletion. 7th Yeast Lipid Conf. (Swansea, Wales, UK)
35. Kersting, M.C., and G.M. Carman. 2005. Regulation of the yeast *EKII*-encoded ethanolamine kinase by zinc. Am. Soc. Biochem. Mol. Biol.
36. Iwanyshyn, W.M., G.-S. Han, and G.M. Carman. 2005. Role of phosphatidate phosphatase activity in the zinc-mediated regulation of phosphatidylserine synthase in yeast. Am. Soc. Biochem. Mol. Biol.
37. Choi, M.-G., A. Sreenivas, and G.M. Carman. 2005. Identification of a protein kinase C phosphorylation target site in yeast choline kinase. Am. Soc. Biochem. Mol. Biol.
38. Han, S.-H., G.-S. Han, W.M. Iwanyshyn, and G.M. Carman. 2005. Regulation of phosphatidylinositol synthase in yeast by zinc depletion. Am. Soc. Biochem. Mol. Biol.
39. Soto, A., and G.M. Carman. 2005. Regulation of yeast choline kinase by zinc. Am. Soc. Biochem. Mol. Biol.
40. Han, G.-S., A. Sreenivas, S.S. Martin, E.P. Baldwin, and G.M. Carman. 2005. Functional expression of the human CTP synthetase enzymes in yeast. Am. Soc. Biochem. Mol. Biol.
41. Chang, Y.-F., and G.M. Carman. 2005. Phosphorylation of transcription factor Opi1p by casein kinase II on Ser¹⁰ regulates expression of the *INO1* gene in yeast. Am. Soc. Biochem. Mol. Biol.
42. Kersting, M.C., and G.M. Carman. 2004. The regulation of the yeast *EKII*-encoded ethanolamine kinase by inositol and choline. Am. Soc. Biochem. Mol. Biol.
43. Iwanyshyn, W.M., and G.M. Carman. 2004. Regulation of the yeast *CHO1*-encoded phosphatidylserine synthase by zinc. Am. Soc. Biochem. Mol. Biol.

44. Han, G.-S., and G.M. Carman. 2004. Regulation of yeast phospholipid metabolism by zinc. *Am. Soc. Biochem. Mol. Biol.*
45. Choi, M.-G., V. Kurnov, A. Sreenivas, M.C. Kersting, and G.M. Carman. 2004. Phosphorylation of yeast choline kinase by protein kinase C. *Am. Soc. Biochem. Mol. Biol.*
46. Choi, H.-S., A. Sreenivas, G.-S. Han, and G.M. Carman. 2004. Regulation of phospholipid synthesis in the yeast *cki1Δ eki1Δ* mutant defective in the Kennedy pathway. *Am. Soc. Biochem. Mol. Biol.*
47. Sreenivas, A., and G.M. Carman. 2004. Phospholipid synthesis in the yeast *opi3* mutant defective in the phospholipid methyltransferase. *Am. Soc. Biochem. Mol. Biol.*
48. Chang, Y.-F., and G.M. Carman. 2004. Phosphorylation of the yeast phospholipid synthesis regulatory protein Opi1p by casein kinase II. *Am. Soc. Biochem. Mol. Biol.*
49. Carman, G.M. 2004. Regulation of Phospholipid Synthesis in Yeast. *Am. Oil Chem. Soc.*
50. Kersting, M.C., and G.M. Carman. 2003. Regulation of ethanolamine kinase by inositol in *Saccharomyces cerevisiae*. *Gordon Res. Conf. Mol. Cell. Biol. Lipids.*
51. Han, G.-S., and G.M. Carman. 2003. Topology of yeast diacylglycerol pyrophosphate phosphatase. *Gordon Res. Conf. Mol. Cell. Biol. Lipids.*
52. Carman, G.M. 2003. Phosphorylation of the yeast phospholipid synthesis regulatory protein Opi1p by protein kinase A. 6th Yeast Lipid Conf. (Colmar, France)
53. Carman, G.M. 2003. Regulation of phospholipid metabolism by zinc. *Am. Soc. Biochem. Mol. Biol.*
54. Iwanyshyn, W.M., and G.M. Carman. 2003. Regulation of lipid synthesis in yeast by zinc. *Am. Soc. Biochem. Mol. Biol.*
55. Choi, M.-G., and G.M. Carman. 2003. Ser⁴²⁴ is a phosphorylation target site for protein kinase C in yeast CTP synthetase. *Am. Soc. Biochem. Mol. Biol.*
56. Oshiro, J., W.M. Iwanyshyn, and G.M. Carman. 2003. The yeast *DPP1* gene encoding diacylglycerol pyrophosphate phosphatase is regulated by the transcription factor Gis1p. *Am. Soc. Biochem. Mol. Biol.*
57. Han, G.-S., and G.M. Carman. 2003. Topography of the yeast diacylglycerol pyrophosphate phosphatase. *Am. Soc. Biochem. Mol. Biol.*

GEORGE M. CARMAN

58. Yu, Y., A. Sreenivas, and G.M. Carman. 2002. Identification of Ser³⁰ and Ser⁸⁵ as protein kinase A phosphorylation sites in yeast choline kinase. 43rd Intern. Conf. Biosci. Lipids. (Graz, Austria)
59. Carman, G.M. 2002. Diacylglycerol pyrophosphate phosphatase and lipid signaling in yeast. FASEB Res. Conf. on Phospholipases.
60. Sreenivas, A., and G.M. Carman. 2002. Phosphorylation of the yeast phospholipid synthesis regulatory protein Opi1p by protein kinase A. Am. Soc. Biochem. Mol. Biol.
61. Iwanyshyn, W.M., and G.M. Carman. 2002. Phosphatidate-mediated regulation of phospholipid synthesis in yeast. Am. Soc. Biochem. Mol. Biol.
62. Oshiro, J., and G.M. Carman. 2002. Transcriptional regulation of the yeast diacylglycerol pyrophosphate phosphatase. Am. Soc. Biochem. Mol. Biol.
63. Han, G.-S., and G.M. Carman. 2002. Phosphorylation of the yeast diacylglycerol pyrophosphate phosphatase. Am. Soc. Biochem. Mol. Biol.
64. Markley, D.J., G.-S. Han, and G.M. Carman. 2002. The yeast YJL100W gene product is a phosphatidylinositol 4-kinase. Am. Soc. Biochem. Mol. Biol.
65. Iwanyshyn, W.M., and G.M. Carman. 2002. Phosphatidate-mediated regulation of phospholipid synthesis in yeast. Keystone Symposia on Mol. Cell. Biol.
66. Carman, G.M. 2001. Interrelationships of phospholipid synthesis with other cellular processes. Am. Soc. Biochem. Mol. Biol.
67. Sreenivas, A., S.A. Henry, and G.M. Carman. 2001. Identification of Ser²⁶ as a protein kinase C phosphorylation site in Opi1p from *Saccharomyces cerevisiae*. Am. Soc. Biochem. Mol. Biol.
68. Han, G.-S., C. Johnston, and G.M. Carman. 2001. Zinc-mediated regulation of yeast DGPP phosphatase and localization in vacuolar membranes. Am. Soc. Biochem. Mol. Biol.
69. Carman, G.M., and G.-S. Han. 2001. Interrelationships of phospholipid synthesis with other cellular processes. Regulation of DGPP phosphatase by zinc. 5th Yeast Lipid Conf. (Svendborg, Denmark)
70. Sreenivas, A., S.A. Henry, and G.M. Carman. 2001. Identification of S²⁶ as a protein kinase C phosphorylation site on Opi1p from *Saccharomyces cerevisiae*. Gordon Res. Conf. Mol. Cell. Biol. Lipids.

71. Han, G.-S., C.N. Johnston, X. Chen, K. Athenstaedt, G. Daum, and G.M. Carman. 2001. Regulation of the *Saccharomyces cerevisiae* *DPPI*-encoded diacylglycerol pyrophosphate phosphatase by zinc. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.
72. Carman, G.M. 2001. Regulation of the yeast *DPPI*-encoded diacylglycerol pyrophosphate phosphatase. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.
73. Carman, G.M. 2000. Diacylglycerol pyrophosphate phosphatase and lipid signaling in yeast. *Keystone Symposia on Mol. Cell. Biol.*
74. Sreenivas, A., S.A. Henry, and G.M. Carman. 2000. Phosphorylation of the yeast regulatory protein *OPH1* by protein kinase C. *Am. Soc. Biochem. Mol. Biol.*
75. Han, G., J. Oshiro, and G.M. Carman. 2000. Regulation of the yeast *DPPI*-encoded diacylglycerol pyrophosphate phosphatase by zinc. *Am. Soc. Biochem. Mol. Biol.*
76. Park, T.-S., and G.M. Carman. 2000. Identification of protein kinase C phosphorylation sites in yeast CTP synthetase. *Am. Soc. Biochem. Mol. Biol.*
77. Quinn, J.E., and G.M. Carman. 2000. Regulation of the yeast *LPPI*-encoded lipid phosphatase by growth phase and inositol supplementation. *Am. Soc. Biochem. Mol. Biol.*
78. Yu, Y., G.M. Carman and B.P. Wasserman. 2000. Identification of the maize amyloplast stroma 112-kDa polypeptide as a starch phosphorylase. *Am. Soc. Biochem. Mol. Biol.*
79. Mu, H., B.P. Wasserman, and G.M. Carman. 2000. Purification and characterization of a 112-kDa starch phosphorylase from maize. *Am. Soc. Biochem. Mol. Biol.*
80. Rush, J.S., D.A. Toke, G. Han, J. Quinn, G.M. Carman, Y. Choi, D.R. Voelker, M. Aebi, and C.J. Waechter. 2000. A Dol-P-Pase that could play a role in the re-cycling of Dol-P in *S. cerevisiae* and Pig Brain. *Soc. Glycobiology*.
81. Carman, G.M. 1999. Molecular characterization and regulation of lipid phosphate phosphatases. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.
82. Pappas, A., and G.M. Carman. 1999. Identification of a novel dUTP-dependent activity of CTP synthetase from *Saccharomyces cerevisiae*. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.
83. Oshiro, J., and G.M. Carman. 1999. Regulation of diacylglycerol pyrophosphate phosphatase in *Saccharomyces cerevisiae* by inositol supplementation and growth phase. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.
84. Park, T.-S., D.B. Ostrander, A. Pappas, and G.M. Carman. 1999. Effect of phosphorylation of yeast CTP synthetase by protein kinase A on the regulation of phospholipid synthesis. *Gordon Res. Conf. Mol. Cell. Biol. Lipids*.

85. Carman, G.M. 1999. Molecular characterization of diacylglycerol pyrophosphate phosphatase. FASEB Res. Conf. Phospholipase D.
86. Carman, G.M. 1998. Regulation of Lipid Phosphatases in Novel Signaling Pathways. Keystone Symposia on Mol. Cell. Biol.
87. Jasinska, R., D.W. Waggoner, Q.-X. Zhang, J. Dewald, D.A. Dillon, G.M. Carman and D. N. Brindley. 1998. Recombinant phosphatidate phosphohydrolase (Type 2) is an ecto-lipid phosphate phosphohydrolase. Keystone Symposia on Mol. Cell. Biol.
88. Carman, G.M. 1998. Molecular Characterization of Lipid Phosphatases in Yeast. Am. Soc. Biochem. Mol. Biol.
89. Kim, K.-H. and G.M. Carman. 1998. Phosphorylation and regulation of yeast choline kinase by protein kinase A. Am. Soc. Biochem. Mol. Biol.
90. Ostrander, D.B., J.A. Gorman, and G.M. Carman. 1998. The effect of CTP synthetase regulation on macromolecular synthesis in yeast. Am. Soc. Biochem. Mol. Biol.
91. Pappas, A., W.-L. Yang, T.-S. Park, and G.M. Carman. 1998. Nucleotide-dependent tetramerization of yeast CTP synthetase. Am. Soc. Biochem. Mol. Biol.
92. Park, T.-S., D.B. Ostrander, A. Pappas, and G.M. Carman. 1998. Identification of Ser⁴²⁴ as the protein kinase A phosphorylation site in yeast CTP synthetase. Am. Soc. Biochem. Mol. Biol.
93. Toke, D.A., W.L. Bennett, J. Oshiro, W.-I Wu, D.R. Voelker, and G.M. Carman. 1998. Isolation and characterization of the yeast *LPP1* gene encoding lipid phosphate phosphatase. Am. Soc. Biochem. Mol. Biol.
94. Carman, G.M. 1998. Regulation of CTP synthetase activity in yeast by phosphorylation and by CTP product inhibition. Can. Fed. Biol. Soc.
95. Carman, G.M., D.B. Ostrander, and D.J. O'Brien. 1998. Effect of CTP synthetase regulation by CTP on phospholipid synthesis in yeast. 39th Intern. Conf. Biochem. Lipids. (Davos, Switzerland)
96. Kim, K.-H., D.R. Voelker, and G.M. Carman. 1997. Expression, purification, and characterization of choline kinase, product of the *CKI* gene from yeast. Am. Soc. Biochem. Mol. Biol.
97. Dillon, D.A., X. Chen, G.M. Zeimet, W.-I Wu, D.W. Waggoner, J. Dewald, D.N. Brindley, and G.M. Carman. 1997. Mammalian Mg²⁺-independent phosphatidate phosphatase (PAP2) displays diacylglycerol pyrophosphate phosphatase activity. Am. Soc. Biochem. Mol. Biol.

98. Waggoner, D.W., J. Dewald, D.A. Dillon, G.M. Carman, and D.N. Brindley. 1997. Recombinant rat liver phosphatidate phosphohydrolase hydrolyzes phosphatidate, lysophosphatidate, ceramide 1-phosphate, and diacylglycerol pyrophosphate. *Am. Soc. Biochem. Mol. Biol.*
99. Dillon, D.A., X. Chen, and G.M. Carman. 1997. Characterization of diacylglycerol pyrophosphate phosphatase from rat liver. *Inst. Food Technol.*
100. Kim, K.-H., and G.M. Carman. 1997. Phosphorylation of choline kinase from *Saccharomyces cerevisiae* by protein kinase A. *Inst. Food Technol.*
101. Carman, G.M. 1997. Regulation of diacylglycerol pyrophosphate phosphatase in yeast. 38th Intern. Conf. Biochem. Lipids. (Assisi, Italy)
102. Carman, G.M. 1996. Phospholipids as cellular mediators in yeast. *Am. Soc. Biochem. Mol. Biol.*
103. Dillon, D.A., W.-I. Wu, and G.M. Carman. 1996. Diacylglycerol pyrophosphate phosphatase is the product of the *pgpB* gene of *Escherichia coli*. *Am. Soc. Biochem. Mol. Biol.*
104. Yang, W.-L., and G.M. Carman. 1996. Mechanism of protein kinase C activation of CTP synthetase from yeast. *Am. Soc. Biochem. Mol. Biol.*
105. Carman, G.M. 1995. Characterization of yeast diacylglycerol pyrophosphate phosphatase, a novel enzyme of phospholipid metabolism. 1st Yeast Lipid Conf. (Graz, Austria)
106. Stukey, J.E., and G.M. Carman. 1995. Isolation of yeast mutants sensitive to expression of *E. coli* diacylglycerol kinase. *Am. Soc. Biochem. Mol. Biol.*
107. Ostrander, D.B., J.A. Gorman, and G.M. Carman. 1995. Translocation of yeast profilin between the plasma membrane and the cytosol is dependent on PIP₂. *Am. Soc. Biochem. Mol. Biol.*
108. Yang, W.-L., and G.M. Carman. 1995. Phosphorylation of yeast CTP synthetase by protein kinase A and protein kinase C. *Am. Soc. Biochem. Mol. Biol.*
109. Wu, W.-I., A.H. Merrill, Jr., A.S. Fischl, J.T. Nickels, Jr., and G.M. Carman. 1995. Regulation of lipid synthesis in yeast by fumonisin B₁. *Am. Soc. Biochem. Mol. Biol.*
110. Carman, G.M. 1995. Identification of a novel enzyme from yeast with phospholipase C and phospholipase D activities. *FASEB Res. Conf. on Phospholipases.*
111. Carman, G.M. 1995. Regulation of phospholipid biosynthesis by CTP. *Gordon Res. Conf. Lipid Metab.*

112. Carman, G.M., and W.-I. Wu. 1994. Regulation of phosphatidate phosphatase activity by adenosine and cytidine nucleotides. *Keystone Sym. Mol. Biol.*
113. McDonough, V.M., Buxeda, R.J., Bruno, M.E.C., Ozier-Kalogeropoulos, O., and Carman, G.M. 1994. Regulation of phospholipid synthesis in yeast by CTP. *Am. Soc. Biochem. Mol. Biol.*
114. Yang, W.-L., McDonough, V.M., Ozier-Kalogeropoulos, O., and Carman, G.M. 1994. Purification and characterization yeast CTP synthetase. *Am. Soc. Biochem. Mol. Biol.*
115. Wu, W.-I., and Carman, G.M. 1994. Regulation of yeast phosphatidate phosphatase activity by nucleotides. *Am. Soc. Biochem. Mol. Biol.*
116. Nickels, J.T. Jr., Buxeda, R.J., and Carman, G.M. 1994. Regulation of yeast phosphatidylinositol 4-kinase by CDP-diacylglycerol. *Am. Soc. Biochem. Mol. Biol.*
117. Buxeda, R.J., and G.M. Carman. 1994. Regulation of the 45- and 55-kDa forms of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae* by lipids. *Am. Soc. Microbiol.*
118. Carman, G.M., and R.J. Buxeda. 1993. Regulation of the 45- and 55-kDa forms of yeast phosphatidylinositol 4-kinase by nucleotides. *Keystone Symposia on Mol. Biol.*
119. Wu, W.-I., and G.M. Carman. 1993. Regulation of yeast phosphatidate phosphatase activity by sphingoid bases. *Am. Soc. Microbiol.*
120. Carman, G.M. 1993. Regulation of phosphatidate phosphatase and overall lipid synthesis in yeast. 34th Intern. Conf. Biochem. Lipids. (Noordwijkerhout, The Netherlands)
121. Carman, G.M., and Y.-P. Lin. 1992. Regulation of yeast membrane-associated phosphatidate phosphatase by lipids in Triton X-100/lipid mixed micelles. *Am. Soc. Biochem. Mol. Biol.*
122. Buxeda, R.J., and G.M. Carman. 1992. Kinetic analysis of the 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. *Am. Soc. Microbiol.*
123. Nickel, J.T., Jr., and G.M. Carman. 1992. Purification and characterization of a 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. *Am. Soc. Microbiol.*
124. Carman, G.M., J.T. Nickels Jr., and R.J. Buxeda. 1992. Purification, characterization, and kinetic properties of 55-kDa phosphatidylinositol 4-kinase from yeast. 16th Intern. Conf. Yeast Genet. Mol. Biol. (Vienna, Austria)

125. Morlock, K.R., J.J. McLaughlin, Y.-P. Lin, and G.M. Carman. 1991. Phosphatidate phosphatase from *Saccharomyces cerevisiae*. Isolation of 45-kDa and 104-kDa forms of the enzyme that are differentially regulated by inositol. Keystone Sym. Mol. Biol.
126. Nickels, J.T. Jr., and G.M. Carman. 1991. Purification of 45-kDa and 70-kDa forms of phosphatidylinositol kinase from yeast. Am. Soc. Biochem. Mol. Biol.
127. McLaughlin, J.J., and G.M. Carman. 1991. Phosphorylation of the yeast 45-kDa form of phosphatidate phosphatase by cAMP-dependent protein kinase. Am. Soc. Biochem. Mol. Biol.
128. Buxeda, R.J., and G.M. Carman. 1991. Kinetic analysis of yeast phosphatidylinositol 4-kinase toward Triton X-100/ phosphatidylinositol mixed micelles. Am. Soc. Biochem. Mol. Biol.
129. Morlock, K.R., Y.-P. Lin, J.J. McLaughlin, and G.M. Carman. 1990. Purification of yeast phosphatidate phosphatase isozymes that are differentially regulated by inositol and phosphorylation. Am. Soc. Biochem. Mol. Biol.
130. Carman, G.M., and M. Bae-Lee. 1990. Yeast phosphatidylserine synthase is regulated by phospholipids. Am. Oil. Chem. Soc.
131. Carman, G.M., and M. Bae-Lee. 1990. Regulation of yeast phosphatidylserine synthase by phospholipids. Am. Soc. Biochem. Mol. Biol.
132. McLaughlin, J.J., and G.M. Carman. 1990. Regulation of phosphatidate phosphatase by phosphorylation. Inst. Food Technol.
133. Toutenhoofd, S.L., T. Gill, S.A. Henry, P.M. Gaynor, and G.M. Carman. 1990. Effect of soluble precursors on expression of *CHO2* and *OPI3*: *N*-methyltransferases in the phospholipid biosynthetic pathway. Mid-Atlantic Yeast Meeting.
134. Belunis, C.J., and G.M. Carman. 1989. Purification and characterization of yeast phosphatidylinositol kinase. Am. Soc. Biochem. Mol. Biol.
135. Kinney, A.J., and G.M. Carman. 1989. Phosphorylation of yeast phosphatidylserine synthase by cAMP-dependent protein kinase. Am. Soc. Biochem. Mol. Biol.
136. Gaynor, P.M., M.J. Homann, and G.M. Carman. 1989. Regulation of phospholipid biosynthetic enzymes in mutants defective in the phospholipid methylation pathway in yeast. Am. Soc. Biochem. Mol. Biol.
137. Morlock, K.R., and G.M. Carman. 1989. The regulation of phosphatidic acid phosphatase by inositol in yeast. Am. Soc. Microbiol.

138. Belunis, C.J., and G.M. Carman. 1989. Purification and characterization of phosphatidylinositol kinase from *Saccharomyces cerevisiae*. Inst. Food Technol.
139. Lin, Y.-P., and G.M. Carman. 1989. Purification of phosphatidate phosphatase from yeast. Inst. Food Technol.
140. Morlock, K.R., and G.M. Carman. 1989. The regulation of phosphatidic acid phosphatase by inositol in yeast. Inst. Food Technol.
141. Gaynor, P.M., and G.M. Carman. 1989. Regulation of lecithin synthesis in yeast. Inst. Food Technol.
142. Kinney, A.J., and G.M. Carman. 1989. Phosphatidylinositol metabolism in baker's yeast. Inst. Food Technol.
143. Kelley, M.J., and G.M. Carman. 1988. Regulation of phosphatidylserine synthase and phosphatidylinositol synthase activities in yeast. Am. Soc. Biochem. Mol. Biol.
144. Morlock, K.R., Y.-P. Lin, and G.M. Carman. 1988. Regulation and purification of yeast membrane-associated phosphatidate phosphatase. Am. Soc. Biochem. Mol. Biol.
145. Gaynor, P.M., and G.M. Carman. 1987. Solubilization of the phospholipid *N*-methyltransferase activities from yeast. Am. Soc. Biol. Chem.
146. Homann, M.J., and G.M. Carman. 1987. Characterization of a yeast mutant defective in CDP-diacylglycerol synthesis. Am. Soc. Biol. Chem.
147. Carman, G.M., and M.J. Homann. 1987. Regulation of phospholipid biosynthetic enzymes by phospholipid precursors in yeast. Am. Soc. Biol. Chem.
148. Kelley, M.J., and G.M. Carman. 1987. Purification and characterization of CDP-diacylglycerol synthase from yeast. Am. Soc. Biol. Chem.
149. Carman, G.M. 1987. Purification and characterization of CDP-diacylglycerol synthase from yeast. Gordon Res. Conf. Lipid Metabolism.
150. Homann, M.J., L.S. Klig, S.A. Henry, and G.M. Carman. 1986. Yeast mutant defective in CDP-diacylglycerol synthase activity. Am. Soc. Biol. Chem.
151. Hromy, J.M., and G.M. Carman. 1986. Reconstitution of purified yeast phosphatidylserine synthase into phospholipid vesicles. Am. Soc. Biol. Chem.
152. Homann, M.J., and G.M. Carman. 1986. Regulation of phospholipid synthesis in yeast. Inst. Food Technol.

153. Kelley, M.J., and G.M. Carman. 1986. Purification of CDP- diglyceride synthase from yeast. *Inst. Food Technol.*
154. Bailis, A.M., M. Poole, M. Homann, G. Carman, and S.A. Henry. 1986. The gene encoding the membrane-associated enzyme phosphatidylserine synthase (*CHO1*) is regulated at the level of mRNA abundance. *Yeast Genet. Mol. Biol.*
155. Bailis, A.M., M.A. Poole, G.M. Carman, and S.A. Henry. 1986. The membrane-associated enzyme phosphatidylserine synthase is regulated at the level of mRNA abundance. 13th Intern. Conf. *Yeast Genet. Mol. Biol.*
156. Fischl, A.S., and G.M. Carman. 1985. Reconstitution of purified yeast phosphatidylinositol synthase into phospholipid vesicles. *Am. Soc. Biol. Chem.*
157. Homann, M.J., S. Fernandez, S.A. Henry, and G.M. Carman. 1985. Phospholipid synthesis in *Schizosaccharomyces pombe*. *Am. Soc. Biol. Chem.*
158. Cirigliano, M.S., and G.M. Carman. 1985. Purification and partial characterization of the bioemulsifier liposan produced by *Candida lipolytica*. *Am. Soc. Microbiol.*
159. Poole, M.A., S.A. Henry, and G.M. Carman. 1985. Immunodetection of phospholipid biosynthetic enzymes in yeast. *Inst. Food Technol.*
160. Henry, S.A., D. Hoshizaki, A. Bailis, M.J. Homann, and G.M. Carman. 1985. Genetic regulation of phospholipid synthesis in yeast. *Inserm Intern. Sym. Nato Work. Enzym. Lipid. Metab.*
161. Carman, G.M. 1985. Phospholipid biosynthesis in *Saccharomyces cerevisiae*. *Gordon Res. Conf. Lipid Metabolism.*
162. Bae-Lee, M., and G.M. Carman. 1984. Phosphatidylserine synthesis in *Saccharomyces cerevisiae*. *Am. Soc. Microbiol.*
163. Cirigliano, M.S., and G.M. Carman. 1984. Production of a bioemulsifier from *Candida lipolytica*. *Am. Soc. Microbiol.*
164. Homann, M.J., L.S. Klig, S.A. Henry, and G.M. Carman. 1984. Regulation of phospholipid synthesis in baker's yeast. *Inst. Food Technol.*
165. Fischl, A.S., and G.M. Carman. 1984. Reconstitution of yeast phosphatidylinositol synthase. *Inst. Food Technol.*
166. Radcliffe, C.W., F.X. Steiner, G.M. Carman, and R.A. Niederman. 1984. Membrane-associated phosphatidylglycerol phosphate and phosphatidylserine synthases in *Rhodospseudomonas sphaeroides*. *East. Reg. Photosyn. Conf.*

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167. Carman, G.M., and M. Bae-Lee. 1984. Purification and characterization of the *CHO1* gene product, phosphatidylserine synthase, from *Saccharomyces cerevisiae*. 12th Intern. Conf. Yeast Genet. Mol. Biol. (Edinburgh, Scotland, UK)
168. Henry, S.A., B. Cooperman, D. Hoshizaki, L.S. Klig, V.A. Letts, B. Loewy, M.J. Homann, and G.M. Carman. 1984. Coordinate regulation of phospholipid synthesis in yeast. 12th Intern. Conf. Yeast Genet. Mol. Biol. (Edinburgh, Scotland, UK)
169. Fischl, A.S., and G.M. Carman. 1983. Purification and properties of phosphatidylinositol synthase from the membranes of *Saccharomyces cerevisiae*. Am. Soc. Microbiol.
170. Carman, G.M., and A.S. Fischl. 1983. Characterization of phosphatidylinositol synthase from baker's yeast. Am. Chem. Soc.
171. Lee-Bae, M., and G.M. Carman. 1983. Partial purification and some properties of phosphatidylserine synthase from *Saccharomyces cerevisiae*. Inst. Food Technol.
172. Fugit, D., M.J. Homann, and G.M. Carman. 1983. Detection of phospholipid biosynthetic enzyme activities in yeast by colony autoradiography. Inst. Food Technol.
173. Letts, V.A., L.S. Klig, M. Lee-Bae, G.M. Carman, and S.A. Henry. 1983. The *CHO1* locus of yeast: cloning and analysis of its gene product; phosphatidylserine synthase. Cold Spring Harbor.
174. Radcliffe, C.W., G.M. Carman, T. Van Es, and R.A. Niederman. 1982. Characterization and membrane localization of enzymes of phosphatidylglycerol and phosphatidylserine synthesis in *Rhodospseudomonas sphaeroides*. Am. Soc. Biol. Chem.
175. Cousminer, J.J., and G.M. Carman. 1982. Purification and characterization of phosphatidylserine synthase from *Clostridium perfringens*. Inst. Food Technol.
176. Fischl, A.S., and G.M. Carman. 1982. Purification and properties of phosphatidylinositol synthase from *Saccharomyces cerevisiae*. Inst. Food Technol.
177. Carman, G.M. 1981. Phosphatidylinositol synthase and phosphatidylserine synthase activities in *Saccharomyces cerevisiae*. Am. Soc. Microbiol.
178. Cousminer, J.J., and G.M. Carman. 1981. Solubilization of phosphatidylserine synthase from the cytoplasmic membrane of *Clostridium perfringens*, type A. Am. Soc. Microbiol.
179. Fischl, A.S., and G.M. Carman. 1981. Partial purification of phosphatidylinositol synthase from baker's yeast. Inst. Food Technol.
180. Robinson, M.L., and G.M. Carman. 1981. Solubilization and characterization of soybean phosphatidylinositol synthase. Inst. Food Technol.

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181. Carman, G.M., and D.S. Wieczorek. 1980. Phosphatidylglycerophosphate synthase and phosphatidylserine synthase activities in *Clostridium perfringens*. Am. Soc. Microbiol.
182. Catanzaro, M.L., S.M. Felder, and G.M. Carman. 1980. Subcellular localization and kinetic parameters of phosphatidylinositol synthase from soybeans. Inst. Food Technol.
183. Wieczorek, D.S., and G.M. Carman. 1980. Phosphatidylglycerophosphate synthesis in *Clostridium perfringens*. Inst. Food Technol.
184. Dowhan, W., and G.M. Carman. 1979. Physical and kinetic evidence for the surface binding during catalysis by phosphatidylserine synthase from *Escherichia coli*. Am. Chem. Soc.
185. Carman, G.M., and W. Dowhan. 1978. A spectrophotometric assay for the kinetic analysis of the CDP-diglyceride dependent enzymes of phospholipid metabolism. Gulf Coast Mol. Biol.
186. Carman, G.M., and R.E. Levin. 1977. Tyrosine phenol-lyase from *Aeromonas phenologenes*. Am. Soc. Microbiol.