

John C. Cambier

Curriculum Vitae
(January 2010)

Personal

Current Position: Ida and Cecil Green Distinguished Professor and Chairman,
Integrated Department of Immunology,
University of Colorado Denver School of Medicine
and National Jewish Health

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Education

Southwest Missouri State University	Springfield, MO	Biology/Chemistry	1970	B.S.
University of Iowa	Iowa City, IA	Virology	1972	M.S.
Max-Planck-Institut Fur Tierzucht und Tierernahrung	Mariensee, W Germany	Immunology	1974	Fellow
University of Iowa	Iowa City, IA	Immunology/Virology	1975	Ph.D.
University of Texas Health Science Center	Dallas, TX	Immunology	1977	Postdoc Fellow

Academic Appointments

1977 - 1978	Instructor, Department of Microbiology, University of Texas Health Science Center, Dallas, TX
1978 - 1980	Asst. Medical Research Professor, Department of Microbiology and Immunology, Duke University Medical Center, Durham, NC
1978 - 1983	Asst. Medical Research Professor, Department of Experimental Surgery, Duke University Medical Center, Durham, NC
1978 - 1983	Member, Graduate Faculty, Duke University Medical Center, Durham, NC
1978 - 1983	Member, Comprehensive Cancer Center, Duke University Medical Center, Durham, NC
1980 - 1983	Asst. Professor, Department of Microbiology and Immunology, Duke University Medical Center, Durham, NC
1982	Visiting Scientist, Bundesforschungsanstalt für Tierzucht und Tierverhalten, Neustadt am RBG, West Germany
1983 - 1985	Adjunct Assoc. Prof., Department of Microbiology and Immunology, Duke University Medical Center, Durham, NC
1983 - 1987	Member, Department of Medicine, National Jewish Hospital and Research Center/National Asthma Center, Denver, CO

1983 - 2008	Director, National Jewish Flow Cytometry Facility
1983 - 1989	Assoc. Professor, Dept. of Microbiology and Immunology, University of Colorado Health Sciences Center,
1984 - 1986	Member, Basel Institute for Immunology, Basel, Switzerland
1987 - 1999	Chief, Division of Basic Sciences, Department of Pediatrics, National Jewish Center for Immunology and Respiratory Medicine, Denver, CO
1987 - present	Ida and Cecil Green Endowed Professor of Cell Biology
1989 - 1994	Professor, Dept. of Microbiology and Immunology, University of Colorado Health Sciences Center, Denver, CO
1990 - 2008	Co-Director, University of Colorado Cancer Center Cytometry Facility
1991 - 1992	Member, Centre d'immunologie de Marseille-Luminy, Institut National de la Santé et de la Recherche Medical, Centre National de la Recherche Scientifique Marseille, France
1994 - present	Professor, Department of Immunology, University of Colorado School of Medicine, Denver, CO
1994 - 1999	Director of Immunology, Cadus Pharmaceutical Corporation, Tarrytown, NY
1997 - 1999	Rothschild-Mayent Fellow, Curie Institute, Paris, France
1999 - present	Chairman, Integrated Department of Immunology, University of Colorado Denver SOM and National Jewish Health
2000 - 2006	Research Associate, Austin Research Institute, University of Melbourne, Australia
2006 - present	Associate, Burnet Institute, Melbourne Australia
2009 - present	University of Colorado, Distinguished Professor

Honors, special recognition and awards

1975	National Research Service Award (NIH)
1982	Research Career Development Award (NIH)
1987	Ida and Cecil Green Endowed Chair of Cell Biology
1997	Univ. of Iowa College of Medicine Lecture
1999	Univ. of Iowa College of Medicine Distinguished Alumni Award for Achievement,
2001	Saspitis Award from the 11 th Symposium on Signals and Signal Transduction in the Immune System
2001	Talmadge Award, Colorado Allergy Society
2002	Outstanding Scientific Achievement Award (NJMRC)
2005	ISI Most Highly Cited
2009	American Association of Immunologists (AAI) Distinguished Lecturer
2009/2010	AAI Nominating Committee
2009	University of Colorado Distinguished Professor
2010	University of Iowa Distinguished Alumnus Award for Achievement

Membership in professional organizations

1976-present	American Association for Immunologists (FASEB)
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Major Committee and Service Responsibilities

Departmental	
1994-1999	Planning Committee
1999 - present	Chairman, Integrated Department of Immunology
1999 - present	Faculty Search Committee (<i>ex officio</i>)
1999 - present	Graduate Program Steering Committee
1999 - present	Retreat/Colorado Immunology Conference Planning Committee
1999 - present	Departmental Space Committee

2006 - 2009 Translational Immunology Symposia Program Committee

Major Committee and Service Responsibilities

School of Medicine

1990-2008 Co-Director, Cancer Center Cytometry Facility
1999-present Chair, Department of Immunology
2000-2001 Vice Chancellor for Research Search Committee
2004-2005 Chairman of Pediatrics Search Committee
2004-2006 Chief of Clinical Immunology Search Committee
2004-2005 Senior Associate Dean, Education, Search Committee
2004-
2006 NJH representative, UCDHSC Comprehensive Cancer Center Consortium
2006 Faculty Search Committee: Division of Rheumatology
2005 Chair, Task Force on Realignment of Basic Science Departments/Programs
2006 Chair, Task Force on Evaluation of Research Complex 1 Space Utilization,
2006 Chair, Biochemistry Department Chair Search Committee
2006 Internal Advisory Board for Colorado Foundation for AIDS Research
2008 Chair, Committee to Allocate General Funds
2008 Faculty Search Committee: CCTCARE
2008-present Mucosal Immunology (MAVRCC) Program Board
2009-2010 Criterion Four Committee
2009 Search Committee: Cancer Center Director
2009-present Faculty Search Committee: Chair of Internal Medicine

Major Committee and Service Responsibilities

National Jewish Health

1983- 2008 Director, Flow Cytometry Facility
1987-1999 Chief, Division of Basic Sciences, Dept. of Pediatrics
1989-1991 Chairman, Appointments & Promotions Committee,
1995 Nonclinical Function Task Force
1995 Vision 2000 Task Force
1996-1999 Technology Transfer Committee,
1998-1999 Long Range Planning Committee,
1998-2000 Faculty Search Committee: Rheumatology
1998-1999 Chair, Faculty Search Committee: Basic Science
1999-present Chair, Department of Immunology
2002 Faculty Search Committee: Allergy
1999-2004 Chair, Faculty Search Committee: Immunology
1999-2004 Faculty Search Committee: Program in Cell Biology
2005-2006 Faculty Search Committee: Chairman of Medicine
2006 Faculty Search Committee: Cell Biology
2008 Flow Cytometry Oversight Committee

Major Committee and Service Responsibilities

National/International

1983-1986 AAI Membership Committee
1983-1986 National Science Foundation, Cell Physiology Grant Review Panel
1987-1990 Block Chair, Program Committee for AAI Annual Meeting
1987-1994 AAI, FASEB Program Committee
1989 Program Chair, Rocky Mtn Flow Cytometry Meeting
1989-1993 NIH Cell Biology II Study Section

1990 Program Chair, Midwinter Immunology Meeting, Asilomar
 1990-1994 Councilman, Midwinter Conference of Immunologists
 1991 Program Chair, International Leukocyte Culture Conference of Reticuloendothelial Society
 1991-1992 AAI Nominating Committee
 1993-1994 Faculty, AAI Annual Immunology Course
 1993-1998 Leukemia Society of America, Grant Review Subcommittee
 1994-1997 Scientific Advisory Board, Cancer League of Colorado
 1994-1999 Board of Scientific Councilors (intramural programs), National Institute on Aging/NIH
 1994 Faculty, Australian Society for Immunology Annual Immunology Course
 1994 International Program Committee for the 12th European Immunology Conference
 1994-1997 Scientific Advisory Board, Funds Allocation Committee of the Cancer League of Colorado
 1996 Co-chair, Keystone Symposium on Lymphocyte Activation
 1996-1999 Committee on Public Affairs, AAI
 1997-2001 Chair, Research Grant Task Force of the Arthritis Foundation, Rocky Mountain Chapter
 1997-2004 Scientific Advisory Board, La Jolla Allergy & Immunology Institute
 1998 International Human Frontier Science Program Grant Review Panel
 2000-2003 National Advisory Council on Aging, (extramural) NIA/NIH
 2002-2008 Executive Committee of the Colorado Center for AIDs research
 2003 Board of Scientific Councilors, NIH Center for Scientific Review (CSR)
 2004 International Advisory Board, International Congress of Immunology
 2004 Advisory Committee, University of Pennsylvania "Lymphocyte homeostasis and regulation during aging"
 2004 NIAMS Board of Scientific Counselors (*ad hoc*)
 2004 Chair, External Review Committee of the Molecular and Cellular Biology Program at Sunnybrook and Women's Research Institute, Toronto, Canada
 2005 Review panel to evaluate HHMI BCEERU proposals
 2005 Site Visit Team to review NIA's Biology of Aging Program
 2005 Site Visit Team to review the Laboratory of Cellular and Molecular Biology, NCI
 2005 Immunology RFA review panel – NIH
 2006 Chair, NIH CSR ZRG1 CB-A Special Emphasis Panel
 2006 Duke Human Vaccine Institute Scientific Advisory Board
 2007 Faculty, AAI Annual Immunology Course
 2007 AAI DAIT Focus Group
 2007 NIH Special emphasis panel
 2007 Review panel "Membrane Associated Signaling Defects in Immune Cells with Aging"
 2007-2008 Lupus Research Institute Grant Review Panel
 2008 Member, Outcome Measurement Study Committee, University of Manitoba
 2008 British Society for Immunology. Review panel on Clinical & Experimental Immunology
 2008 NIA Aging and Immunology Grant Review
 2009 Special Emphasis Panel/Scientific Review Group – US-UK Collaborations in the Biology of Aging
 2009 ARRA-RC2-SEP-9 GO Grant Review Committee, NIH
 2009 Chair, NIAID Special Emphasis Panel
 2009/2010 AAI Nominating Committee
 2010 - present Board of Scientific Councilors (intramural programs), National Cancer Institute/NIH
 2010 ESAB-NIH/NIGMS National Center for Systems Biology in New Mexico

Industry and Corporate Experience

1994-1999	Director of Immunology, Cadus Pharmaceutical. 1994-1999. Assisted corporate development and development of drug discovery programs in biotech startup (from 22 employee to 130 employee stage).
2008	Founder, Taiga Pharmaceuticals, Denver, Colorado
2008 -	Scientific Advisory Board, Beacon Biotech, Denver, Colorado
2009 -	Scientific Advisory Board, Aquinox Pharmaceuticals, Vancouver, BC Canada

Inventions, intellectual property and patents held or pending

Method for Receptor Desensitization – Patent No.: US 6,503,509 B1, Date of Patent: 1/07/03 – (currently licensed by NovImmune Inc)
Product and Method for Treatment of Conditions Associated with Receptor-Desensitization, Date of Patent 2/9/04 – New Zealand Patent No. 514374
Product and Method for Treatment of Conditions Associated with Receptor-Desensitization, Date of Patent 2/5/04 – Australia Patent No. 766882
Conditionally Immortalized Long-Term Stem Cells and Methods for Making and Using Such Cells 2006 Application No. 2879-117
MHC II ASSOCIATED PROTEIN AND USES THEREOF. 2009 Application No. PCT/US2009/062996

Editorial and Manuscript Review

1985-1986	Associate Editor, Journal of Immunology
1986-1989	Editorial Board, Lymphokine Research
1986-1989	Section Editor, Journal of Immunology
1988-1992	Advisory Board, Seminars in Immunology
1988-1994	Editorial Board, Journal of Clinical Immunology
1988-2000	Editor, Advances in Regulation of Cell Growth
1992	Editorial Board, Current Opinion in Immunology
1992-1997	Deputy Editor, Journal of Immunology
1994-1999	Editorial Board, Immunity
2000-2005	Associate. Editor, Immunity
2000-present	Editorial Board, Immunology
2000-2001	Advisory Board Member of Signal Transduction
2001-present	Member, Faculty of 1000
2001-2008	Editorial Board, Signal Transduction-Receptors, Mediators and Genes
2002-2008	Editorial Board, Immunological Reviews
2003-present	Editorial Board, Journal of Clinical Immunology
2004-present	Editorial Board, Current Opinion in Immunology
2006-present	Editorial Board, Biology Direct

Invited extramural lectures, presentations and visiting professorships (since 2004)

2004	Gordon Research Conference on Immunochemistry and Immunobiology, “Lymphocyte Cell Signaling”, Buellton, CA
2004	Keystone Symposium, Hematopoiesis, Tahoe City, CA
2004	60 th AAAAI Annual Meeting, San Francisco, CA
2004	Lerner Research Institute, Immunology Task Force, Cleveland, Ohio
2004	12 th Intl. Congress of Immunology, Montreal
2004	Co-Organizer, Trudeau Institute International Workshop, Saranac Lake, NY

2005 1st Annual Symposium on Aging and Cancer, Denver, CO
 2005 American Association of Asthma, Allergy and Immunology Annual Meeting, San Antonio, TX
 2005 Keystone Symposium “B Cells in Health and Disease”
 2005 American Transplant Congress, Seattle, WA
 2005 Chair, FASEB Conference, 2005, “Immunoreceptors”
 2005 Psychoneuroimmunology Research Society, Denver, CO
 2005 BSI and Research into Ageing International Workshop, Edward Jenner Institute for
 Vaccine Research, Oxford England
 2005 Dunn School at Oxford, Oxford England
 2005 3rd Annual UC Irvine Immunology Fair, Irvine CA
 2006 11th International Conference on Lymphocyte Activation and Immune Regulation, Irvine
 California
 2006 University of Miami
 2006 American Association of Asthma, Allergy and Immunology Annual Meeting, Miami Florida
 2006 University of Pennsylvania
 2006 Tufts University
 2006 University of Alabama
 2006 Cleveland Clinic, Lerner Institute, Cleveland, OH
 2006 Co-Chair/speaker, European Satellite Conference, Aging Research in Immunology, Paris, France
 2006 MIT Enterprise Forum – Research and Concepts – Denver, CO
 2006 Oklahoma Medical Research Foundation – Oklahoma City, OK
 2007 Harvard Medical School – Boston, MA
 2007 La Jolla Institute for Allergy and Immunology, San Diego, CA
 2007 Celgene, San Diego, CA
 2007 University of Illinois, Chicago, IL
 2007 AAI Annual Meeting, AAI-BSI Joint Symposium, Miami, FL
 2007 AAI Signaling Course, Fox Chase Cancer Center, Philadelphia, PA
 2007 B Cells and Autoimmunity Satellite Meeting, Rio De Janeiro, Brazil
 2007 Session chairperson, 13th International Congress of Immunology, Rio De Janeiro, Brazil
 2007 14th Symposium on Signals and Signal Processing in the Immune System, Balatonoszod Hungary
 2007 University of Toronto
 2007 University of Colorado Comprehensive Cancer Center, Denver CO
 2008 Midwinter Conference of Immunologists, Asilomar, CA
 2008 Keystone Symposia, Tolerance in Transplantation and Autoimmunity, Keystone CO,
 2008 Arthritis Foundation, Rocky Mountain Chapter
 2008 University of Chicago Medical Center
 2008 Northwestern University, Chicago IL
 2008 American Society of Gene Therapy 11th Annual Meeting, Boston MA
 2008 American Transplant Congress, Toronto Canada
 2008 Session Chair/Speaker, FASEB, Immunoreceptors, New Haven CT
 2008 Dartmouth University
 2008 University of New Mexico SOM
 2008 NovImmune Geneva Switzerland
 2008 Merck Serono Geneva Switzerland
 2008 British Society of Immunology Annual Congress, Glasgow Scotland
 2009 Celgene, San Diego, CA
 2009 Keystone Symposia “Immunologic Memory and Host Defense”, Colorado
 2009 Instructor, Lunteren Symposium, “Sensing and signaling by the immune system”, Netherlands,
 2009 Distinguished Speaker: AAI “Immunology 2009”, Seattle, Washington
 2009 Aegean Conference, 5th Leukocyte Signal Transduction Workshop, Heraklion Greece

2009 Pasteur Institute, Paris France
 2009 15th Symposium on Signaling, Budapest, Hungary
 2009 EMBO Conference, Signaling in the Immune System, Siena Italy
 2009 Visiting Professor, Beijing Medical School
 2009 Visiting Professor, Tsinghua University
 2009 Visiting Professor, Wuhan University
 2009 Visiting Professor, University of Science and Technology China
 2009 Visiting Professor, Military Medical School, China

Teaching Record

1978-1983 Extensive teaching at Duke University, including development and teaching graduate level immunology and immunochemistry courses.
 1990-1998 Cell Biology of the Immune System, IMM7663, (~6 lectures/year)
 1999-present IMM7662 - Introductory Immunology (4-6 lecture hours/year)
 2006-present IMM7604 - Special Topics in Signal Transduction (2 lecture hours/year)
 2007-present Pillars of Immunology (~1 lecture/year)
 2007 Blood and Lymph/Disease and Defense (Medical student small group)
 2007-present IMM7607 - Science as a Profession (2 lecture hours/year)

Graduate Student Committee Activity

<u>Current Thesis Committees</u>	<u>Comprehensive Exam Committee (since 2005)</u>
Ben St. Clair	Jennifer Larson (2007) Chairperson
Corinne DePersis	Kira Rubtsova (2005)
Shannon Oda	Melanie Rae Bui (2006)
Tracy Condon	Francis Conrad (2006)
Rebecca Keith (Riches Lab) pulmonary fellow-2009	Ryan Bjordahl
Greg Kirchenbaum	*Six students in 2007
Courtney Fleenor - 2010	*Five students in 2008

*since 2007 a single committee has examined all students

Past thesis committee participation

Dan Fitzsimmons, Kristie Grebe, Kara Lukin, Stephanie Atencio, Sean Bennett, Amanda Guth, Chris Snyder, Steve Kattman (Chair), David Robles, Jeff Colbert (Chair), Jeannette Brown, James Kovacs, Raedun Clarke (chair), Jincheng Hu (chair), Kim Jordan, Christine Steinhart (chair), Yibing Wang (chair), Gabriela Valez, Eva Sadat UT Southwestern, Kelly Pike, University of Toronto.

<u>Ph.D. Candidates Directed</u>	
<u>Name</u>	<u>Current Position</u>
K. Elkins	Staff Scientist, NCI, Bethesda MD
C. Fernandez	Staff Immunologist, Cutter Laboratories, Berkeley, CA
M. Coggeshall	Assoc. Professor, Oklahoma Med Research Foundation
M. Klemsz	Asst. Professor, U. of Indiana SOM
K. Newell	Assoc. Professor, U. of Colorado – Colorado Springs
C. Pleiman	Project Director, Myriad Pharmaceuticals
J. Stolpa	Attorney
M. Chumley	Assoc. Professor, Texas Christian University

L. Pao	Staff Scientist, Genentec, San Francisco, CA
L. Jackson	Scientist, Array Biopharma Inc., Boulder CO
D. Mills	Scientist 1, Arena Pharmaceuticals, San Diego CA
D. Fong	Resident, University of Washington SOM
Y. Wang	Postdoctoral Fellow, Wuhan University, Wuhan, China
L. Guerrettaz	Staff Scientist, Genomics Institute of the Novartis Research Foundation

Postdoctoral Fellows Directed		
Name	Degree Granting Institution	Current Position
L. Cantarero, Ph.D.	University of Iowa	CEO, Arogenex, Inc. Houston
J.G. Monroe, Ph. D.	Duke University	Director Immunology Diagnostics. & Biomarkers, Genentec
S. Josephs, M.D.	Duke University	Children's Hosp. Wash. D.C.
J.T. Ransom, Ph. D.	Univ. Texas Southwestern	Vice President for Research, Cytori Therapeutics, Inc.
Z.Z. Chen, Ph. D.	Beijing University	Univ. of California, Davis
L. Justement, Ph. D.	Ohio State University	Professor, Univ. of Alabama, Birmingham
T. Finkel, M.D., Ph. D.	Stanford University	Chief, Division of Rheumatology Children's Hospital of Philadelphia
D. Cross, M.D., Ph. D.	McGill University	Specialist in Allergy and Clinical Immunology, Calgary, Alberta.
C. Fisher, Ph.D.	Univ. of North Carolina	Federal Bureau of Investigation
K. Campbell, Ph. D.	Medical College of Virginia	Member, Basic Science Division Fox Chase Cancer Institute
N. Chien, Ph. D.	Albert Einstein Med. School	Executive Director of IP and Senior Patent Attorney Pharmaceutical Product Development, Inc.
F. Goldman, M.D.	Louisiana State University	Director, Pediatric Bone Marrow Transplantation, Dept. Pediatrics, University of Iowa
M. Clark, M. D.	Univ. Cal. Los Angeles	Chief of Rheumatology, Pritzker School of Medicine, University of Chicago
A. Harwood, Ph.D.	Michigan State University	U. S. Navy
P. Andre, Ph.D.	University of Marseille, France	Senior Scientist, Innate Pharma, Marseille Fr.
D. D'Ambrosio, M.D., Ph.D.	University of Rome, Italy	Actelion, Basel Switzerland
C. Persin, Ph.D.	Paul-Ehrlich Institut	Hoechst AG, Frankfurt
W. Jensen, D.V.M., Ph.D.	Colorado State University	Senior Director of Research and Development, Heska Pharmaceutical
K. Hippen, Ph.D.	Iowa State University	Assistant Professor, Univ. of Minnesota
P. Lang, Ph.D.	University of Paris	Head of Cellular Pharmacology, Merck Serono Pharma, Geneva
J. Freiderich, Ph.D.	University of Goettingen	Dept. of Biochemistry, Germany
M. Chien, Ph.D.	University of Pittsburgh	Deceased
B. Bedzyk, Ph.D.	University of Illinois	Dade Behring Incorporated
L. Pao	Univ. California, Berkeley	Research Associate, Genentec

E. Atkinson, Ph.D.	University of Calgary	President, BroadReach Biosystems, Inc, Seattle
A. Mette Buhl, Ph.D.	University of Aarhus	Department of Hematology, Rigshospitalet, Copenhagen,
K. Nakamura, Ph.D.	University of Kyoto	Asst. Professor, Dept. Pharmacology, University of North Carolina
R. Benschop, Ph.D.	Utrecht University, Netherlands	Staff Scientist, Eli Lilly Corporation
I. Tamir, Ph.D.	Weizman Institute	CEO, RADBiomed, Israel
B. Vilen, Ph.D.	University of North Carolina	Assist. Prof. Univ. of NC SOM
P. Oliver, Ph.D.	University of North Carolina	Asst. Prof, Childrens Hospital of PA.
J. DalPorto, Ph.D.	University of Maryland	Staff Scientist, Roche Bioscience CA
A. Brauweiler, Ph.D.	Colorado State University	Research Associate, UCDHSC
V. Ott, Ph.D.	University of Wisconsin	Global Project Manager, Nimblegen Corp., Madison WI
S. Marschner, Ph.D.	University of Würzburg	Cell and Protein Biologist, Caridian BCT Biotechnologies
S. Gauld, Ph.D.	University of Glasgow	Assistant Professor, Medical College of Wisconsin
K. Merrell, M.D., Ph.D.	Columbia University	Attending Emergency Physician, Adventist Hospital System, Denver, CO
A. Bernard, Ph.D.	University of Rochester	Senior Instructor, CU Denver
E. Nutku, MD, Ph.D.	Johns Hopkins	UCDHSC, further medical studies
C. Cady, MD, Ph.D.	UCHSC, Denver, CO	Physician, Western Montana Clinic
J. Rice, Ph.D.	Albert Einstein	Program Officer – NIH
Current Lab Postdocs		
L. Jin, Ph.D.	Tufts University	MPYS, a novel innate immune sensor
P. Waterman, Ph.D.	University of Wisconsin	gp120-induced CD4 inhibitory signaling
L. Xu Ph.D.	Beijing University	VISA/MAVS/IPS1 function in TLR signaling
Y. Yarkoni, Ph.D.	Hebrew University, Israel	Function of STIM1 in BCR signaling
A. Getahun, Ph.D.	Uppsala University, Sweden	Effects of infection and other innate signals on anergy.
M. Seefeldt, Ph.D.	University of Colorado, Boulder	Anti-CD79 mAbs as novel therapeutics
S. O'Neill, Ph.D.	University of Chicago	Status of insulin specific B cells in T1D
A. Van den Broeck, Ph.D.	Albert Bonniot Institute of the University of Grenoble1, France	Epigenetic changes in aging stem cells
Current Trainees		
LJ. Akerlund	University of Oregon	SHIP1 and Dok in the maintenance of B cells anergy
F. Conrad	University of Colorado	Role of BCR autoantigen affinity in T1D
I. Hardy	University of Colorado	Basis of FcR independent B cell clearance by anti-CD79 mAbs

Current Grant Support

P01 AI022295-22 (Marrack) 08/01/85-07/31/12 15%
NIH \$246,605 (project 2 only)
Antigen Recognition by Lymphocytes
Project 2: Maintenance of B cell Anergy – (Cambier PI)
Core A – Flow Cytometry Core – (Cambier PI)

5R01 AI062739-05 (Cambier) 06/01/05-2/28/10 5%
NIH \$232,541
NKIP signaling and function

R01 AI062739-05S2 (Cambier) 8/14/09-7/31/11 8%
NIH/ARRA Supplement \$213,394
NKIP signaling and function

R01 AI062739-05S1 (Cambier) 06/05/09-09/30/10
NIH/ARRA Admin. Supplement \$13,536
NKIP signaling and function

1-2008-994 (Gottlieb) (Cambier co-PI) 9/1/08-8/31/11 10%
JDRF \$107,671
Autoantigen Specific B Cells in the Development of Human Type 1 Diabetes

R21 AI078207-01 (Cambier) 7/1/09-06/30/11 10%
NIH/NIAID \$125,000/year
B Cell Development in Aging

R01 AG013983-22A2 (Cambier) 9/15/09-8/31/11 20%
NIH/NIAID \$250,000/year ARRA funding
B Cells and Autoimmunity

R01 AI077597-01A1 (Cambier) 12/1/09-11/30/14 20%
NIH \$250,000
Infectious Agents and B Cell Anergy

T32 AI074491 (Cambier)
Molecular Mechanisms of Immune Tolerance

Completed projects

R01 AI036676 (Cambier)
NIH
HIV gp120 desensitization of T cell receptor function

R01 AI039773 (Cambier)
IgG regulation of IgE-mediated basophil degranulation

R56 AI074444 (Cambier)
Inhibitory receptors and their mode of action

R21 AI069894 (Cambier)
Characterization of anergic human B cells

R01 AI020519 (Cambier)
Molecular Biology of B cell tolerance and activation

P01 AI021768 (Cambier)
Molecular Basis of HIV induced immune suppression

R01 DK047121 (Cambier)
CD45 tyrosine phosphatase regulation of signaling

M01 RR000041
Immunological Responses to immunotherapy in cat allergens

Bibliography

Papers published in peer-reviewed journals

1. **Cambier JC**, Meek ES 1972. Quantitative assay of paravaccinia virus based on enumeration of inclusion-containing cells. *Appl Microbiol.* 24:138-142.
2. **Cambier JC**, Butler JE 1974. A rapid method for the purification of immunoglobulin M (IgM) from the sera of certain mammalian species. *Prep Biochem.* 4:31-46.
3. **Cambier JC** 1975. The secretory immune system of the rat. Ph.D. Thesis, University of Iowa.
4. **Cambier JC**, Butler JE 1976. Two immunochemically and physicochemically distinct secretory components from rat exocrine secretion. *J Immunol.* 116:994-999.
5. **Cambier JC**, Kettman JR, Vitetta ES, Uhr JW 1976. Differential susceptibility of neonatal and adult murine spleen cells to in vitro induction of B-cell tolerance. *J Exp Med.* 144:293-297.
6. Vitetta ES, **Cambier JC**, Ligler FS, Kettman, JR, Uhr JW. 1977. B-cell tolerance. IV. Differential role of surface IgM and IgD in determining tolerance susceptibility of murine B cells. *J Exp Med.* 146:1804-1808.
7. **Cambier JC**, Uhr, JW, Kettman, JR, Vitetta ES. 1977. B cell tolerance. I. Analysis of hapten-specific unresponsiveness induced in vitro in adult and neonatal murine spleen cell populations. *J Immunol.* 119:2054-2059.
8. **Cambier JC**, Vitetta ES, Kettman, JR, Wetzel GM, Uhr JW. 1977. B-cell tolerance. III. Effect of papain-mediated cleavage of cell surface IgD on tolerance susceptibility of murine B cells. *J Exp Med.* 146:107-117.
9. **Cambier JC**, Vitetta ES, Uhr JW, Kettman JR 1977. B-cell tolerance. II. Trinitrophenyl human gamma globulin-induced tolerance in adult and neonatal murine B cells responsive to thymus-dependent and independent forms of the same hapten. *J Exp Med.* 145:778-783.
10. Ligler FS, **Cambier JC**, Vitetta ES, Kettman JR, Uhr JW 1978. Inactivation of antigen-responsive clones with antisera specific for IgM or IgD. *J Immunol.* 120:1139-1142.

11. **Cambier JC**, Ligler FS, Uhr JW, Kettman JR, Vitetta ES. 1978. Blocking of primary in vitro antibody responses to thymus-independent and thymus-dependent antigens with antiserum specific for IgM or IgD. *Proc Natl Acad Sci U S A.* 75:432-435.
12. **Cambier JC** , Neale MJ. 1980. Induction of clonally restricted thymus-dependent antibody responses in vitro using phosphorylcholine derivatized sheep erythrocytes. *J Immunol Methods.* 38:231-238.
13. **Cambier JC**, Havran WL, Fernandez de Albornoz T. , Corley RB. 1981. Identification of a brain theta-positive, secretory cell from hematopoietic tissues. *J Immunol.* 127:1685-1691.
14. **Cambier JC** , Corley RB. 1981. The effect of second signals on the induction of B cell tolerance: failure of helper T cells to block tolerance induction. *Eur J Immunol* 11:550-556.
15. Monroe JG, Havran WL , **Cambier JC**. 1982. Enrichment of viable lymphocytes in defined cycle phases by sorting on the basis of pulse width of axial light extinction. *Cytometry.* 3:24-27.
16. **Cambier JC** , Neale MJ. 1982. Isolated phosphorylcholine binding lymphocytes. I. Use of a cleavable crosslinking reagent for solid-phase adsorbent isolation of functional antigen binding cells. *J Immunol Methods.* 51:209-221.
17. **Cambier JC**. Monroe JG , Neale MJ. 1982. Definition of conditions that enable antigen-specific activation of the majority of isolated trinitrophenol-binding B cells. *J Exp Med.* 156:1635-1649.
18. Monroe JG, Havran W., **Cambier JC**. 1983. B lymphocyte activation: entry into cell cycle is accompanied by decreased expression of IgD but not IgM. *Eur J Immunol* 13:208-213.
19. Fernandez C and **Cambier JC**. 1983. Mixed colony stimulating factor. III. Ablation of CFU-S activity using anti-CSF mixed antibody. *J Biol Chem.* 19:357.
20. Monroe JG, **Cambier JC**. 1983. Sorting of B lymphoblasts based upon cell diameter provides cell populations enriched in different stages of cell cycle. *J Immunol Methods.* 63:45-56.
21. **Cambier JC**, Monroe JG. 1983. Flow cytometry as an analytic and preparative tool for studies of neuroendocrine function. *Methods Enzymol.* 103:227-245.
22. Monroe JG, **Cambier JC**. 1983. B cell activation. III. B cell plasma membrane depolarization and hyper-Ia antigen expression induced by receptor immunoglobulin cross-linking are coupled. *J Exp Med.* 158:1589-1599.
23. Monroe JG, **Cambier JC**. 1983. B cell activation. I. Anti-immunoglobulin-induced receptor cross-linking results in a decrease in the plasma membrane potential of murine B lymphocytes. *J Exp Med.* 157:2073-2086.
24. Monroe JG, **Cambier JC**. 1983. Level of mIa expression on mitogen-stimulated murine B lymphocytes is dependent on position in cell cycle. *J Immunol.* 130:626-631.
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