**CURRICULUM VITAE GUIDELINES TO FACULTY IN PREPARATION FOR**

**ANNUAL AND ACADEMIC REVIEW**

The attached template is based on recommendations for academic CVs from NIH. It is intended to assure faculty evaluations for all personnel actions (appointments, promotions, merit advancements, appraisals for promotion, etc.) are accomplished by Departmental, School, Campus, Academic Senate and external reviewers in a fair and impartial process, with adequate data presented by each faculty member fully representing the entire scope of their academic activities. These are guidelines only. Each faculty member will have unique activities that are not fully represented in these guidelines. Feel free to add subsections for such activities as appropriate. Selected sections may not be applicable to all faculty, depending on the specific roles being reviewed. Going forward, and once we are at full census, CDB will solicit review by an external scientific advisory committee, thus having all faculty CVs in a common format will facilitate this process, as well as facilitate common annual evaluations with the Chair. Please avoid undefined acronyms, focusing on clarity. Please be as concise as possible. List items in chronological order from oldest to most recent. Please note that some items should include all relevant information, while other listings may be limited to activities during only the past five years.

**CURRICULUM VITAE**

**CAROLINE ALICE ENNS**

Professor, Department of Cell & Developmental Biology

|  |  |
| --- | --- |
| Oregon Health & Science University3181 SW Sam Jackson Park roadPortland, OR 97239-3098  | Voice: (503) 494-5945Fax: (503) 494-4253Email: ennsca@ohsu.edu |

**I. Education:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Institution** | **Degree Conferred** | **Area** |
|  |  |  |  |
| 1970 | University of California, San Diego | B.A. | Chemistry |
| 1976 | University of Oregon | Ph.D. | Chemistry |
| 1979 | McMaster University | Postdoc  | Enzymology |
| 1983  | Stanford University | Postdoc  | Membrane Proteins |

**II. Principal Positions Held:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year(s)** | **Institution** | **Title** | **Department** |
|  |  |  |  |
| 1965 | Scripps Institute of Oceanography, La Jolla | NSF Summer Student | Geosciences |
| 1970-1971 | University of Oregon | NSF Predoctoral Traineeship | Chemistry |
| 1974-1976 | University of Oregon | PHS Predoctoral Traineeship | Chemistry |
| 1976-1979 | McMaster University | Medical Research Postdoctoral Fellow  | Biochemistry |
| 1979-1983 | Stanford University | Postdoctoral Scholar | Department of Pathology |
| 1983-1984 | Vanderbilt University | Research Instructor | Department of Biology |
| 1984-1990 | Syracuse University | Assistant Professor | Department of Biology |
| 1990-1991 | Syracuse University | Associate Professor | Department of Biology  |
| 1991-2000 | Oregon Health & Science University | Associate Professor | Department of Cell and Developmental Biology |
| 2000-Present | Oregon Health & Science University | Professor | Department of Cell, Developmental, and Cancer Biology |

**OTHER POSITIONS HELD CONCURRENTLY:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year(s)** | **Institution** | **Title** | **Department** |
|  |  |  |  |
| 1970-1974 | University of Oregon | Teaching Assistant | Chemistry |

III. HONORS AND AWARDS:

|  |  |  |
| --- | --- | --- |
| **Year** | **Award** | **Conferring Organization** |
|  |  |  |
| 1966 | Honors at entrance | University of California San Diego Revelle College |
| 1970 | Honors in Chemistry | University of California, San Diego Revelle College |
| 1992 | Graduate Program Excellence in Teaching Award | Oregon Health & Science University |
| 1993 | Graduate Program Excellence in Teaching Award | Oregon Health &Science University |
| 1995 | Graduate Program Excellence in Teaching Award | Oregon Health & Science University |
| 1998 | Graduate Program Excellence in Teaching Award | Oregon Health & Science University |
| 2003 | Graduate Program Excellence in Teaching Award | Oregon Health & Science University |
| 2013 | Elected Fellow  | American Association for the Advancement of Science (AAAS) |

**IV. PROFESSIONAL ACTIVITIES**

|  |
| --- |
| **External Scientific Advisory Board Membership** |
| **Year(s)** | **Role** | **Activity** |
|  |  |  |
| 2011-2015 | Elected to the Board of Directors of the International Bioiron Society  | Decide venue and composition of international meetings |
| 2009-2017 | Medical Research Foundation Council | Make final funding decisions |
| 2016-present | NIH Hematology Centers Overview Committee | Provide advice |
| **Scientific Review Board membership** |
| **Year(s)** | **Role** | **Activity** |
| 2010-2012 | Select abstracts for talks and posters | American Society of Hematology |
| 2009-2015 | Select abstracts for talks and posters | Bioiron |
|  | **See also government committees** |  |

**Local, National and International Meetings Organized:**

|  |  |
| --- | --- |
| **Year** | **Meeting** |
|  |  |
| 2013 | Bioiron Vancouver BC, Canada |
| 2015 | Bioiron Hangzhou, China |

**SERVICE TO PROFESSIONAL SOCIETIES**

Society (years of activity)

|  |  |
| --- | --- |
| **Year** | **Role** |
|  |  |
| 1972-Present | American Association for the Advancement of Science |
| 1972-2014 | American Chemical Society |
| 1976-2015 | American Alpine Club |
| 1980-1994 | New York Academy of Science |
| 1983-Present | American Society for Biology and Molecular Biology |
| 1983-Present | West Coast Iron Club |
| 1986-Present | American Society for Cell Biology |
| 2003-Present | International Bioiron Society |
| 2011-2015 | Board of Directors International Bioiron Society |
| 2019 | Select talks for American Society of Hematology |
| 2019 | Select talks for International Bioiron Meeting Heidelberg, Germany |
| 2019 | Reviewer for European Hematology Association applications |
| 2019 | Session Leader for International Bioiron Meeting Heidelberg, Germany |

**Service to Professional Publications:**

|  |  |
| --- | --- |
| **Year** | **Journal and Role** |
|  |  |
| 1992-1995 | Analytical Biochemistry- Editorial Board |
| 2005-2010 | Journal of Biological Chemistry- Editorial Board |
| 2011-2016 | Journal of Biological Chemistry-Editorial Board |

## Ad hoc peer-reviewed manuscript reviewing

|  |  |
| --- | --- |
| **Year** | **Journal** |
|  |  |
| Regular | Blood |
| Regular | BBA |
| Regular | Proc. Natl. Acad. Sci. USA |
| Regular | Cell Metabolism |
| Occasional | Journal of the American Society of Hematology |
| Occasional | Biochemistry |
| Occasional | Analytical Biochemistry |
| Occasional | Journal of Cell Phys. |
| Occasional | EMBO J |
| Occasional | Gut |
| Occasional | Biochemical Journal |
| Occasional | Haematologica |
| Occasional | Hepatology |
| Occasional | Journal of Hepatology |
| Occasional | Traffic |
| Occasional | NBD |
| Occasional | American J. Phys.- Cell Physiology |
| Occasional | Nature Cell Biology |
| Occasional | Chemistry Biology D |
| Occasional | Biological Chemistry |
| Occasional | Expert Reviews in Molecular Medicine |
| Occasional | Journal of Clinical Investigation |
| Occasional | PlosOne |
| Occasional | Journal of Cell Science |
| Occasional | Journal of Haemotology |
| Occasional | Canadian Journal of Biochemistry |
| Occasional | Experimental Cell Research |
| Occasional | Journal of Cell Physiology |
| Occasional | Journal of Molecular Biology |
| Occasional | Placenta |
| Occasional | Society for Experimental Biology and Medicine |
| Occasional | Journal of Cell Biology |
| Occasional | Endocrinology |
| Occasional | CRC Press |
| Occasional | Molecular Biology of the Cell/ |
| Occasional | Nature Immunology |
| Occasional | Nature Reports |
| Occasional | JOCES |
| Occasional | Hematology |
| Occasional | Journal of Physiology-GI |
| Occasional | EBIO |
| Occasional | Disease Markers |
| Occasional | Gastroenterology |
| Occasional | Journal Clinical Investigation |
| Occasional | Blood Reviews |

Government Service

|  |  |  |
| --- | --- | --- |
| **Year(s)** | **Institute** | **ROLE** |
|  |  |  |
| 1984-2005 | NSF Proposals | Occasional outside reviewer |
| 1993 | NIH Nutrition Study Section Ad Hoc | Reviewer |
| 1993-1994 | Veterans Administration proposals | Reviewer |
| 1994-1998 | NIH Physiological Chemistry Study Session | Reviewer |
| 1998 | NIH special study session, Berkely, CA | Reviewer |
| 1999 | NIH special study session, Oakland, CA | Reviewer |
| 2004-2008 | NIH Erythrocytes, Leukocytes and Blood Study Section | Reviewer |
| 2009 | CDC May 18, 2009 (one) | Reviewer |
| 2009-2010 | NIH ELB Oct 15, 2009 (five) | Reviewer |
| 2010 | NIH program project review for NCI 2/2/10 | Reviewer |
| 2010 | NIH ELB ad hoc May 2010 (one) | Reviewer |
| 2010 | NIH ZRG study section 5/26-27/2010 (two) | Reviewer |
| 2011 | NIH NCI Study Section Discovery and Imaging ZCA1 GRB-P (M1) 01/25-26 | Reviewer |
| 2012 | NIH ZRG EMNR-H July | Reviewer |
| 2013 | NIH MCH Study Section Ad Hoc Feb 2013, Ad Hoc Oct 2014 | Reviewer |
| 2014 | NIH ZRG1 DKUS C Gastrointestinal Physiology/Pathophysiology-2 | Reviewer |
| 2015 | NIH Review Panel for NICHD Intramural Program | Reviewer |
| 2015 | NIH Study Section Ad Hoc Hematology C (declined because of potential conflict of interest) | Invited Reviewer |
| 2015 | NIH Study Section Ad Hoc ZRG1DKUS R04 | Reviewer |
| 2015 | NIH Study Section Ad Hoc ZRG1DKUS SEP | Reviewer |
| 2016 | NIH Hematology Cores Oversight Committee | advisor |
| 2016 | NIH Reviewer for U54 Hematology Specialized Core Centers | Reviewer |
| 2016 | NIH Site Visit for Intramural Program  | Reviewer |
| 2017 | NIH Review of in house scientist | Reviewer |
| 2019 | NIH Awards committee for an in house scientist | Reviewer |
| 2020 | NIH Acting Chair Review of U54 and U24 NIDDK Cooperative Centers of Excellence in Hematology Study Section Mar 23-24 | Reviewer |

Other Professional Ad Hoc Service

|  |  |  |
| --- | --- | --- |
| **Year(s)** | **AGENCY/INSTITUTE** | **ROLE** |
|  |  |  |
| 1995 | American Lung Association Grant | Reviewer |
| Occasional | The Wellcome Trust | Reviewer |
| Regular | Telethon Italy | Reviewer |
| Occasional | MRC (England) | Reviewer |
| Occasional | NSF | Reviewer |
| Occasional | Raine Foundation Australia | Reviewer |
| Occasional | Canadian Institute of Health Research | Reviewer |
| Occasional | Canadian Research Institute | Reviewer |
| Occasional | Health Research Board, Ireland | Reviewer |
| Occasional | Human Frontier of Science Program | Reviewer |
| Occasional | Israel Science Foundation | Reviewer |
| 2015 | Czech Science Foundation | Reviewer |
| 2015 | NBIA (Neural degeneration with brain iron accumulation) | Reviewer |
| 2015 | Wellcome Trust (Great Britain) | Reviewer |
| 2015 | Fondazione Cariplo (Italy) | Reviewer |
| 2015 | Telethon (Italy) | Reviewer |
| 2016 | Austrian Academy of Sciences | Reviewer |
| 2016-present | European Hematology Society  | Reviewer |
| 2019 | Ad hoc reviewer for Welcome Trust applicationsReviewer for Austrian Academy of Sciences applicationsReviewer for European Hematology Association applicationsReviewer for University of Queensland thesis, Brisbane Australia | Reviewer |

**IV. UNIVERSITY AND PUBLIC SERVICE**

University Service

Syracuse University

|  |  |
| --- | --- |
| 1984-1985 | Undergraduate Curriculum Committee for Department of Biology |
| 1986-1988 | Promotions Committee for College of Arts and Sciences |
| 1984-1990 | Graduate Biophysics Program |
| 1988-1990 | Six faculty search committees for Department of Biology, S. U. |
| 1989-1990 | OLARS Committee (Office of Laboratory Animal Research) |
| Syracuse University Biology Graduate Student Committee (32) |
| Syracuse University Chemistry Graduate Student Committee (4) |
|  |
| State University of NY Medical Center at Syracuse Graduate Student Committee (4) |
| State University of NY at Stony Brooke Graduate Student Committee (1) |

Oregon Health and Sciences University

|  |  |
| --- | --- |
| **Year(s)** | **Role** |
|  |  |
| 1991 | Department of Cell Biology and Anatomy Promotion and Tenure Committee |
| 1991-1993 | Head of Departmental Seminar Program |
| 1991-1992 | Chairman Faculty Search Committee |
| 1991-1992 | Cell Structure-Function Curriculum Committee |
| 1991-2010 | Cell Biology Graduate Course curriculum development |
| 1991-1992 | Cellular Disease Processes Curriculum Committee |
| 1992-1993 | Department of Molecular Microbiology and Immunology Promotion and Tenure Committee |
| 1993-1998 | Student Faculty Committee |
| 1993-1998 | Chair of PMCB Admissions |
| 1993-1998 | Committee for Women in Academic Medicine |
| 1993-1999 | PMCB Executive Committee |
| 1993-1999 | Committee on Committees |
| 1993-2008 | Graduate Student Admissions Committee |
| 1993-2012 | Molecular Hematology Training Program |
| 1994 | MRF Research Review |
| 1994-2004 | Department of Biochemistry and Molecular Biology Promotion and Tenure Committee |
| 1995-2010 | Member of the Selection Committee for Pathogenesis NIH training grant |
| 1995-2004 | Department of Molecular and Medical Genetics Promotion and Tenure Committee |
| 1995-2010 | Pathogenesis Training Program |
| 1995-2011 | Department of Cell and Developmental Biology Promotion and Tenure Committee |
| 1996-1998 | Curriculum Committee for Cell Structure and Function (med. Student course). |
| 1996-1999 | Chair of the Selection Committee for Pathogenesis NIH training grant |
| 1996-2005 | Eye T-32 Training Grant |
| 1998-2008 | Graduate School Admissions Committee |
| 1998-2000 | M.D.-Ph.D. Admissions Committee |
| 1998-2012 | Chair Graduate School Awards Committee (Student and Faculty awards) |
| 1999-Present | Medical Research Foundation Committee |
| 1999 | Co-founded departmental summer research program for undergraduates with Jan Christian and David Pribnow |
| 2004-2010 | School of Medicine Promotion and Tenure |
| 2007-2011 | PSR oversight committee (masspectrometry facility run by Larry David) |
| 2009-Present | Committee to evaluate Bridging grant applications |
| 2009-2011 | Vertex Scholar Committee chair |
| 2010-2012 | The Child Development and Rehabilitation Center Progress and fellowship committee |
| 2011 | Cancer Biology Task Force |
| 2011-? | Space Committee |
| 2001-2018 | Chair of departmental Promotion and Tenure Committee  |
| 2013 | Department faculty search committee |
| 2015 | Department of Cell, Developmental & Cancer Biology Retreat Co-chair  |
| 2011-present | Presidential Bridge Funding Committee |
| 2009-2018 | Medical Research Foundation of Oregon Executive Council |
| 2014-Present | Committee on Committees |
| 2016- Present | Promotion and Tenure Committee Biomedical Engineering |
| 2016-2017 | Ad hoc Promotion and Tenure advisory committee for the School of Medicine |
| 2018-2019 | Presentations and participation in Faculty lunch talksPresentation to the Gene TherapyPresidential Bridge Funding CommitteeWas asked to write letters of recommendation for promotion both at OHSU and from other universitiesFaculty Affairs CommitteeGraduate School Admissions committee |

**Public Service:**

|  |  |
| --- | --- |
| **Year(s)** | **Role** |
|  |  |
| 1994-2000 | Saturday Academy |
| 1995-2000 | University of Oregon Mentor Program |
| 1997 | ASWEM high school program |
|  |  |
| 2015 | Wrote letter for ASH award |
| 2015 | Evaluated candidates for promotion and/or tenure at U Conn, U of Pennsylvania, and Harvard  |

V. TEACHING AND MENTORING

**Formal Scheduled Classes for OHSU Students:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Qtr** | **Academic Yr** | **Course No. & Title** | **Teaching Contribution** | **Units** | **Class Size** |
|  |  |  |  |  |  |
| Spring | 1991 | CON 623- Cell Biology | Co-Director with Dr. Thomas- 3 lectures |  |  |
| Spring | 1992 | CON 623- Cell Biology | Director- 4 lectures |  |  |
| Spring | 1992 | Histology | 3 lectures and all labs |  |  |
| Spring | 1993 | CON 623- Cell Biology | Director- 5 lectures |  |  |
| Spring | 1993 | Histology | 3 lectures and all labs |  |  |
| Fall/Winter | 1993 | Spring Molecular Cell Biology Journal Club | 4 lectures and all labs |  |  |
| Winter | 1994 | Cell Structure and Function |  |  |  |
|  | 1994 | Histology | 4 lectures and all labs |  |  |
| Spring | 1994 | CON 623- Cell Biology | Director- 8 lectures |  |  |
| All Year | 1994 | Molecular Cell Biology Journal Club |  |  |  |
| Winter | 1995 | Seminars in Cell Biology (CBA 605) | 2 lectures |  |  |
| Winter | 1995 | Cell Structure and Function | 4 lectures and 28 hr. labs |  |  |
| Spring | 1995 | CON 623- Cell Biology | Director- 6 lectures |  |  |
| Winter | 1995 | Seminars in Cell Biology (CBA 605) | 2 lectures |  |  |
| Winter | 1996 | Cell Structure and Function | 4 lectures and 24 hr. labs |  |  |
| Spring | 1996 | Con 623- Cell Biology | Director- 6 lectures |  |  |
| Fall | 1996 | Seminars in Cell Biology (CBA 605) | Director- 1 lecture |  |  |
| Fall | 1996 | Cell Structure and Function | 2 lectures |  |  |
| Winter | 1997 | Cell Structure and Function | 2 lectures and 15 hr. labs |  |  |
| Winter | 1997 | Membrane Biochemistry (MRB 634) | 2 lectures |  |  |
| Winter | 1997 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Spring | 1997 | CON 623- Cell Biology | Director- 8 lectures |  |  |
| Spring | 1997 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Fall | 1997 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Winter | 1998 | Cell Structure and Function | 4 lectures and 28 hr. labs |  |  |
| Winter | 1998 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Spring | 1998 | CON 623- Cell Biology | Director- 6 lectures |  |  |
| Spring | 1998 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Winter | 1999 | Cell Structure and Function | 4 lectures and 28 hr. labs |  |  |
| Winter | 1999 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Spring | 1999 | CON 623- Cell Biology | Director- 6 lectures |  |  |
| Fall | 1999 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| Fall | 1999 | Cell Structure and Function | 4 lectures  |  |  |
| Winter | 2000 | Seminars in Cell Biology (CBA 605) | Director-1 lecture |  |  |
| All Year | 2001-present | Cell Structure and Function | 4 lectures and 16-22 hr lab a year |  |  |
| All Year | 2001-present | CON664- Cell Biology | Director 1991-2012. 3 lectures a year |  |  |
| All Year | 2001-present | Cell Biology Journal Club  | Director 1991-2005. 3 presentations a year  |  |  |
|  | 2015-present | Endocytosis- FUND710 | Lecture |  |  |
|  | 2015 | Cell Polarity- FUND710 | Lecture |  |  |
| All year | 2015-present | Histology | Labs including: endocrine, eye, epithelium, cartilage and bone, spleen thymus & bone, skin, respiratory, liver, GI, blood, endocrine, muscle | 30hr | 160 |
|  | 2015 | Heme Workshop | 2 lectures Medical School |  | 140 |
| Winter | 2016 | Endocytosis | Lecture CONJ 664 |  | 14 |
| Winter | 2015 | Nuclear Transport | Lecture CONJ 664 |  | 14 |
| Winter | 2015 | Sorting in Polarized Cells | Lecture CONJ 664, proctored exams |  | 14 |
| Fall Winter | 2011-Present | CONJ664 | Co-DirectorLectures on endocytosis, polarized protein sorting, nuclear localization signals | Units4 | Class 35-14 |
| Fall | 2018-present |  | Lecture to on inherited diseases to Y’East Scholars |  | 13-17 |

**Formal Scheduled Classes for non-OHSU Students:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Qtr** | **Academic Yr** | **Course No. & Title** | **Teaching Contribution** | **Units** | **Class Size** |
| Spring | 2010-2017 | Iron homeostasis | Taught 3 hours class and participated in student evaluation Univeristy of Porto Porto, Portugal | 1 week | 12 |

**Postgraduate and Other Courses at Syracuse University**

|  |  |  |
| --- | --- | --- |
| **YEAR** | **Course / Institution** | **Role** |
| 1985 | Adv. Cell Bio (Bio 538)/ Syracuse University | Director, 42 lectures |
| 1985 | Independent Study (Bio 490) | Director, 42 lectures |
| 1986 | Cell Dynamics (Bio 685) | 14 lectures |
| 1986 | Biological Literature (Bio 688) | 12 lectures |
| 1986 | Independent Study (Bio 490) |  |
| 1986 | Adv. Cell Bio (Bio 538)/ Syracuse University | Director, 42 lectures |
| 1987 | Cell Dynamics (Bio 685) | 14 lectures |
| 1987 | Independent Study (Bio 490) |  |
| 1987 | Biological Literature (Bio 688) | 12 lectures |
| 1987 | Grad Research Lab (Bio 610) |  |
| 1987 | Independent Reading (Bio 688) |  |
| 1988 | Cell Dynamics (Bio 685) | 14 lectures |
| 1988 | Cell Biology (Bio 316) | Director, 42 lectures |
| 1989 | Cell Dynamics (Bio 685) | 14 lectures |
| 1989 | Cell Biology (Bio 316) | Director, 42 lectures |
| 1989 | Independent Study (Bio 490) |  |
| 1989 | Biochemistry (Bio 575) | Director, 42 lectures |
| 1989 | Grad Research Lab (Bio 610) |  |
| 1990 | Cell Dynamics (Bio 685) | 14 lectures |
| 1990 | Cell Biology (Bio 316) | Director, 42 lectures |
| 1990 | Grad Research Lab (Bio 610) |  |
| 1990 | Independent Study (Bio 490) |  |
| 1990 | Biological Literature (Bio 688) | 12 lectures |
| 1990 | Biochemistry (Bio 575) | Director, 42 lectures |
| 1990 | Independent Study (Bio 490) |  |

# High School and Undergraduate Students Supervised or Mentored:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Program or School** | **Faculty Role** | **Current position** |
| 1985-1987 | Michael Rexach | Syracuse University | Research Advisor | UC Santa Cruz, Professor |
| 1985-1986 | Jay Sall | Syracuse University | Research Advisor |  |
| 1985-1987 | Roger Chin | Syracuse University | Research Advisor |  |
| 1987 | Susan Honyotski | Syracuse University | Research Advisor |  |
| 1988 | Regina Chorsky | Syracuse University | Research Advisor |  |
| 1988-1990 | Tracey Theroux | Syracuse University | Research Advisor |  |
| 1989 | Robin Janas | Syracuse University | Research Advisor |  |
| 1990 | Fiona Matthews | Syracuse University | Research Advisor |  |
| 1990 | Randall Allen | Syracuse University | Research Advisor |  |
| 1991-1992 | Anh Chi Le | OHSU | Research | Ph.D., Manager Science Education at HHMI |
| 1992 (Summer) | Chau Vu | OHSU | Research | Pharmacist |
| 1992-1993 | Edward Hanes | OHSU | Research | ? |
| 1992-1995 | John-Paul Blodgett | OHSU | Research | Nurse |
| 1996-1997 | Nicolas Popadopoulos | OHSU | Research | ? |
| 1999 (Summer) | Emily Anderson (Stebbins) | OHSU | Research | MD Anesthesiologist Univ. Vermont Assistant Professor |
| 1999& 2000 (Summer) | Mastura Wahedi | OHSU  | Research | Research technician |
| 2004 (Summer) | Patricia Funk | OHSU | Research | ? |
| 2007-2008 | Catalina Hernandez | OHSU | Research | MD PhD program |
| 2009 (Summer) | Ken McCulough | OHSU | Research | Emory University, Graduate Student |
| 2013-2016 | Emily Becker | OHSU | Research | ? |
| 2015 | Katie Green | OHSU | Research | College student Rochester Institute of Technology |
| 2015-2017 | Richard Zhang | OHSU | Research  | High school student |
|  |  |  |  |  |

## Predoctoral Students Supervised or Mentored:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Program or School** | **Faculty Role** | **Current position** |
| 1985-1988 | Deborah Vestal, Ph.D., 1988 | Syracuse University | Graduate Research Advisor | University of Toledo, Ohio, Professor |
| 1986-1987 | Constance Reckhow, M.S., 1987 | Syracuse University | Graduate Research Advisor |  Industry |
| 1987-1989 | Eva Clinton, M.S., 1989 | Syracuse University | Graduate Research Advisor | Industry |
| 1987-1990 | Cynthia Fenn, M.S., 1990 | Syracuse University | Graduate Research Advisor | Industry |
| 1988-1991 | Anthony Williams, Ph.D., 1991 | Syracuse University | Graduate Research Advisor | Industry |
| 1992-1998 | Robin Warren, Ph.D. | OHSU | Graduate Research Advisor | Systems Research Engineer Abbott |
| 1992 | Renee Tsolis, Ph.D. | OHSU | Rotation | UC Davis, Professor |
| 1993 | Michelle Kelly, Ph.D. | OHSU | Rotation |  |
| 1995 | Alex Merz, Ph.D. | OHSU, MMI | Thesis committee | University of WA, Associate Professor |
| 1995 | Ando van der Weldon, Ph.D. | OHSU | Rotation | Stonybrook Univ., Associate Professor |
| 1995-1996 | Isabelle Gaston, Ph.D. | OHSU | Rotation | Bay Area, Medical Writing Consultant |
| 1996 | Kirstan Labudda  |  | Rotation | ? |
| 1996-1998 | Kristi Absalon, M.S. | OHSU | Advisor, Thesis Mentor | mother |
| 1997-2001 | Cindy Roy (Gross), Ph.D. | OHSU | Advisor, Thesis Mentor | NIH Program Director, Division of Kidney, Urology & Hematologic Diseases |
| 1995-1999? | Gwynn M Daniels | OHSU, CDB | Thesis committee | Dept. Director Environmental Health & Safety Univ. of Oregon |
| 1992-1999? | Anderson, Eric | OHSU, CDB | Thesis committee | ? |
| 1999 | Paige Davies, Ph.D. | OHSU, CDB  | Advisor, Thesis Mentor | Scientific editor |
| 2001-2006 | Martha Johnson, Ph.D. | OHSU, BMB  | Advisor and Thesis Mentor | Science writer  |
| 2004 | Norah Verbout, Ph.D. | OHSU | Rotation | Senior Scientist & Project Manager at Aronora |
| 2007-2011 | Julia Maxson, Ph.D. | OHSU | Qualifying Exam, Thesis Mentor | Assistant Professor OHSU |
| 2009-2015 | Christal Worthen, Ph.D. | OHSU | Advisor, Thesis Mentor | Scientist II at Universal Cells* Seattle, Washington
 |
| 2012-2016 | Khoa Tran, Ph.D. | OHSU, MMI | Postdoctoral Advisor Committee | R&D scientist, Lyons VisionGift |
| 2013 | Mohamed Farhad | OHSU, CDB | Rotation | Student OHSU |
|  | Jane Richards, Ph.D.  | OHSU, CDB | Thesis Committee |  |
| 2014 | Christine Calton, Ph.D.  | OHSU, MMI | Thesis Committee |  |
| 2014 | Jinzhi Wang, Ph.D. | OHSU, CDB | Thesis Committee | Senior Scientist at Washington U |
| 2014 | Rachel Clemmons-Grisham, Ph.D.  |  | Thesis Committee, chair | Scientist at NASA Ames Research Center |
| 2014 | Hangyu Zhao, Ph.D. | OHSU, Neuroscience | Thesis Committee | Postdoc, Harvard |
| 2014 | Asako Itakura , Ph.D. | OHSU, CDB | Qualifying Exam | Novartis, Medical Scientific Expert |
| 2015 | Brittany Daughtry | OHSU, CDB | Qualifying Exam Chair | Student, OHSU |
| 2015 | Laura Healy | OHSU, CDB | Qualifying Exam Chair | Student, OHSU |
|  | Jay Rosenbaum, M.D. Ph.D. | OHSU, CDB | Thesis Committee | MD, PhD |
|  | Chantal Gamby, Ph.D. | OHSU, CDB | Thesis Committee |  |
|  | Mike Varnum, Ph.D. | OHSU, CDB | Thesis Committee |  |
|  | Melissa Moholt-Siebert, M.S.  | OHSU, CDB | Thesis Committee |  |
|  | Mike Kennedy | OHSU, CDB | Qualifying Exam |  |
|  | Mei Shya Chen | OHSU, CDB | Qualifying Exam? |  |
|  | Tan, Ph.D. | Oregon Graduate Institute | Thesis exam |  |
|  | Erik Snapp, Ph.D.  | OHSU, MMI | Thesis CommitteePh.D. exam | Director of Student and Postdoctoral Programs, Janelia Research Campus |
|  | Janice Vranka, Ph.D. | OHSU, Biochemistry | Thesis Committee |  |
|  | Tamy Martin, Ph.D.  | OHSU, MMI | Thesis Committee | Assoc. Prof. OHSU |
|  | Brian Link, Ph.D. | OHSU, CDB | Thesis Committee | Prof. Med. Col. Wisconsin |
|  | Chang-Sheng Guo, Ph.D. | OHSU, CDB | Thesis Committee |  |
|  | Lin Lan, Ph.D. | OHSU, MMI | Thesis Committee |  |
|  | Navid Madani, Ph.D. | OHSU, Biochemistry | Qualifying Exam | Research Associate Harvard University  |
|  | Yang Xiang, Ph.D. | OHSU, CDB | Thesis Committee |  |
|  | Micah Worely, Ph.D. | OHSU, MMI | Thesis Committee | Assist Prof. University of Louisville |
|  | Carl Fjeld, Ph.D. | OHSU, Biochemistry | Qualifying Exam |  |
|  | John Mason, Ph.D.  | OHSU, Physiology and Pharmacology | Thesis Committee |  |
|  | Monique Johnson, Ph.D.  | Oregon Graduate Institute | Thesis Committee |  |
|  | Joel Walker, Ph.D. | OHSU, BMB | Thesis Committee | Marie Curie Scholar Univ. of Naples |
|  | Jason Larson, Ph.D. | OHSU, MMI | Thesis Committee |  |
|  | Chris Payne | OHSU, CDB | Thesis Committee |  |
|  | Brandi Vasquez M.D. Ph.D. | OHSU, MMI | Thesis Committee |  |
|  | Mee Min, Ph.D. | OHSU, BMB | Thesis Committee |  |
|  | Eric Carlson  | OHSU, CDB | Thesis Committee | Scientist Shriners Portland OR |
|  | Jay Cho M.D., Ph.D.  | OHSU, CDB | Thesis Committee |  |
|  | John Eises M.D. Ph.D.  | OHSU, BMB | Thesis Committee |  |
|  | Kaoru Geddes, Ph.D.  | OHSU, MMI | Thesis Committee |  |
|  | Gokan Dalgin, Ph.D.  | OHSU, CDB | Qualifying Exam |  |
|  | Tom Coate, Ph.D.  | OHSU, CDB | Qualifying Exam |  |
|  | Isabel Shotz, Ph.D. | OHSU, MMI | Qualifying Examrotation |  |
|  | David Pizano, Ph.D.  | OHSU, Pharmacology and Physiology | Qualifying Exam |  |
|  | Jack Lee, Ph.D.  | OHSU, CDB | Qualifying Exam |  |
|  | Colin Powers, Ph.D.  | OHSU, MMI | Thesis Committee |  |
| 2005-2009 | Lawrence Gray, Ph.D.  | OHSU, BMB  | Qualifying ExamThesis Committee | Data Scientist at Maxar Technologies |
|  | Chelsea Bahney, Ph.D.  | OHSU, CDB | Qualifying Exam |  |
|  | Sophia Bornstein, M.D. Ph.D.  | OHSU, CDB | Qualifying Exam | OHSU, Assistant Professor |
|  | Sylvia Nelson, Ph.D. | OHSU, CDB | Thesis Committee | OHSU, Assistant Professor |
|  | Ted Braun, M.D., Ph.D. | OHSU, BMB | Qualifying Exam, TAC Committee | OHSU Fellow Medical Oncology |
|  | Eric Benedetti |  | Qualifying Exam, Chair | Research technician |
|  | Rebecca Lazelle, Ph.D. |  | Qualifying Exam | PSU lecturer |
|  | Annie Powell, Ph.D. | OHSU, CDB | Thesis Committee | University of Oregon, Assistant Professor |
|  | Kang Wang, Ph.D.  |  | Thesis Committee | Postdoctoral fellow  |
|  | Sunita DeSousa, Ph.D.  | OHSU, CDB | Thesis Committee |  |
|  | James Hayden, Ph.D.  | OHSU, CDB | Thesis Committee |  |
|  | Tom Finn Ph.D. | OHSU, CDB | Thesis Committee |  |
| ?-2015 | Johannes Eferlich, Ph.D. | OHSU, BMB | Ph.D. Exam Committee  | Postdoctoral fellow OHSU |
| ?- 2016  | Jennifer Gardell, Ph.D. | OHSU, MMI | Ph.D. Exam Committee  | Postdoctoral fellow OHSU |
|  2015-2019  | Anna Mammal | OHSU, CDCB | Qualifying Exam | Graduate student |
| 2015-2017 | Kevin Watanabe-Smith, Ph.D. | OHSU, CanB | Thesis CommitteeThesis Exam  | Postdoc OHSU |
| 2016 | Aaron Wortham, M.S. | OHSU, CDCB | Thesis CommitteeThesis Exam  | Research technician |
| 2015 | Danielle Williamson, M.D., Ph.D. | OHSU, BMB | Thesis Committee, Ph.D. Exam | Medical student OHSU |
| 2016 | Julia Doh | OHSU, Phys. Pharm. | Co-mentor and Qualifying Exam  | Student OHSU  |
| 2016 | Oriana Alexandra de Paixao Praças Marques, Ph.D. | University of Porto | Thesis Exam | Postdoctoral FellowEMBL Heidelberg  |
| 2016-2017 | Erica Goddard, Ph.D. | OHSU CDCB | Thesis Exam | Student OHSU |
| 2011-2015 | Rebecca Lazelle | OHSU MMI | Qualifying Exam | Warner Pacific College |
| 2001-2008 | Colin Powers | OHSU MMI | Thesis CommitteeThesis Exam | Senior Scientist at Sorrento Therapeutics |
| 2017-present | Daelyn Richards | OHSU MMG | Thesis Committee | Medical student Washington State University |
| 2019 | Sud Iyer | OHSU | Qualifying Exam | Student OHSU |
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# Postdoctoral Fellows and Residents Directly Supervised or Mentored

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Position & Funding** | **Faculty Role** | **Current Position** |
| 1991-1996 | Anthony Williams | Postdoctoral fellow | mentor | Industry |
| 1991-1995 | Elizabeth Rutledge | Postdoctoral fellow | mentor | College |
| 2001-2004 | Hanqian Carlson | Postdoctoral fellow | mentor | Shriners |
| 2003-2005 | William Hooker | Postdoctoral fellow | mentor | ? |
| 2005-2012 | Juxing Chen | Postdoctoral fellow | mentor | Industry |
| 2005-2012 | Junwei Gao | Postdoctoral fellow | mentor | OHSU research |
| 2011-Present | Ningning Zhao | Postdoctoral fellow | mentor |  Assistant Professor Univ. of Arizona  |
| 2013-2016 | Shelley Mason | Postdoctoral fellow | mentor | ? |
| 2015-2018 | Mark Kleven | Postdoctoral fellow | mentor | Postdoctoral Fellow |
|  |  |  |  |  |
| 1999-2000 | Marlyse Peyou-Ndi | Postdoctoral fellow | mentor | Reece International Research consortium, University of Yaounde I Cameroon |
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FORMAL FACULTY MENTORING

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| --- | --- | --- | --- | --- |
| **Dates** | **Name** | **Position while Mentored** | **Mentoring Role** | **Current Position** |
| 1999-2000 | Neva Lyons | High School Teacher | Partners in Science | High School Teacher |
| 2007-2010 | Maja Chloupková | Research Assistant Professor | Grant and research mentor | Chemistry Technical Specialist |
| 2009-2010 | Gary Reiness | Sabbatical Professor- Lewis & Clark College | Collaborations | Professor- Lewis and Clark |
| 2015-pres | Philip Copenhaver | Professor, OHSU | Grant mentoring | Professor, OHSU |
| 2016-pres | Xiaolin Nan | Assistant Professor, OHSU | Junior faculty mentoring | Assistant Professor, OHSU  |
| 2015-2016 | Ujwal Shinde | Associate Professor, OHSU | Grant mentoring | Associate Professor, OHSU |
| 2016-pres | Linda Musil | Associate Professor, OHSU | Grant mentoring | Associate Professor, OHSU |
| 2016-pres | Kimberly Beatty | Assistant Professor, OHSU | Junior faculty mentoring | Assistant Professor, OHSU |
| 2017 | Alex Nechiporuk | Associate Professor, OHSU | Grant mentoring | Associate Professor, OHSU |

SUMMARY OF TEACHING HOURS

|  |  |  |
| --- | --- | --- |
| **Academic Year** | **Teaching** | **Hours** |
| 2016 | Graduate student and medical student classroom  | 24 |

VI. invited presentations

Symposia and Workshops: International

|  |  |
| --- | --- |
| **Year** | **Meeting (name, location)** |
| 1986 | 8th International Congress on Proteins of Iron Storage and Transport, Montreal, Canada\* |
| 1987 | McGill University, Montreal, Canada, Department of Biochemistry |
| 1988 | 4th International Congress of Cell Biology, Montreal, Canada\* |
| 1989 | 9th International Congress on Proteins of Iron Storage and Transport, Brisbane, Australia\*. |
| 1991 | 10th International Congress on Proteins of Iron Storage and Transport, Oxford, Great Britain\* |
| 1993 | 11th International Congress on Proteins of Iron Storage and Transport, Jerusalem, Israel\* |
| 1999 | Bioiron 1999, Sorrento Italy \* |
| 2004 | Metals in Biology invited talk Santiago, Chile Dec |
| 2005 | Bioiron meeting 2005 Prague 2 poster presentations |
| 2007 | Bioiron Meeting 2007Kyoto Japan TfR2 interactions March 2007 |
| 2010 | Iron at the interface of basic and clinical research Ein Kerem, Jerusalem, Israel |

*UPCOMING INVITATIONS*

|  |  |
| --- | --- |
| **Year** | **Meeting (name, location)** |
|  |  |

**Symposia and Workshops: National**

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| **Year** | **Meeting (name, location)** |
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*UPCOMING INVITATIONS*

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| **Year** | **Meeting (name, location)** |
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**Invited Lectures/Seminars: International**

|  |  |
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| **Year** | **Meeting (name, location)** |
| 2011 | UBIC Universidad Porto Portugal March 2011  |
| 2012 | UBIC Universidad Porto Portugal |
| 2013 | UBIC Universidad Porto Portugal |
| 2014 | IBMC Porto Portugal |
| 2015 | IBMC Porto Portugal  |
| 2016  | IBMC Porto Portugal |
| 2015 | International Bioiron Society Hangzhao China |

*UPCOMING INVITATIONS*

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| **Year** | **Meeting (name, location)** |
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**Invited Lectures/Seminars: National**

|  |  |
| --- | --- |
| **Year** | **Meeting (name, location)** |
| 1985 | State University of New York Health Science Center at Syracuse, Syracuse, NY Department of Biochemistry |
| 1985 | University of Rochester, Rochester, NY, Department of Biophysics |
| 1986 | State University of NY Health Science Center at Syracuse, Syracuse, NY, Department of Medicine |
| 1987 | University of Vermont, Burlington, VT, Department of Biochemistry |
| 1988 | Hoffman LaRoche, Nutley, NJ |
| 1990 | Albert Einstein College of Medicine, Bronx, New York, Dept. of Biophysics |
| 1990 | Indiana University, Indianapolis, Department of Physiology |
| 1990 | Medical College of Ohio, Toledo, OH, Department of Biochemistry |
| 1990 | University of Minnesota Medical School, Minneapolis MN Department of Cell Biology |
| 1993 | Oregon Graduate Institute of Technology |
| 1993 | Khepri Inc., So. San Francisco, CA |
| 1994 | Harvard University, Boston, MA, School of Public Health, Dept. of Nutrition |
| 1995 | International Congress on Bioiron, Ashville, North Carolina |
| 1996 | Lewis and Clark College, Portland, Oregon, Dept. of Biology |
| 1997 | Progenitor Inc., Menlo Park CA |
| 1998 | Albert Einstein School of Medicine, Department of Biophysics |
| 1999 | FASEB meeting, Washington DC |
| 2000 | University of Utah, Dept. Pathology and Dept. Medicine |
| 2000 | Pacific Northwest Regional Laboratories, Pasco WA |
| 2000 | Texas A&M University, Dept. of Biochemistry and Biophysics |
| 2000 | Shriner's Children's Hospital, Research Unit |
| 2001 | University of California, Los Angeles Department of Biochemistry |
| 2001 | University of Southern California, Department of Pathology |
| 2004 | Penn State University May |
| 2004 | Colorado State University Feb |
| 2004 | Louisiana State University Mar |
| 2004 | FASEB conference 2004 Washington DC invited talk |
| 2004 | Trace Element Metabolism invited talk FASEB Summer meeting July 2  |
| 2005 | FASEB 2005 Stability of TfR2 |
| 2006 | FASEB 2006 Conference Micronutrients Snowmass July 2006 |
| 2006 | University of Cincinnati Oct |
| 2007 | Gordon Research Conference in Metals in Cell Biology  |
| 2007 | NIH Strategic Planning Special Emphasis Hematology Sept 2007 |
| 2007 | AASLD invited talk September  |
| 2007 | NIH Strategic Planning Special Emphasis Hematology |
| 2008 | ASBMB talk based on selected abstract\* |
| 2008 | UT Southwestern April 6, 2008 |
| 2009 | ASH Meeting, New Orleans, December 2009, invited speaker |
| 2009 | Center for Disease Control Special Task Force on Hereditary Hemochromatosis |
| 2010 | FASEB summer Trace Elements in Biology and Medicine, Snowmass CO, June 2010, |
| 2010 | Harvard University |
| 2011 | Penn State University |
| 2012 | Mayo Clinic |
| 2012 | New York Blood Bank |
| 2012 | Heme-NET meeting sponsored by NIH |
| 2014 | Biometals- July |
| 2014 | ASH Meeting- attended |
| 2015 | Northwestern University- March |
| 2015 | Gordon Conference Red Blood Cells- June |
| 2015 | ASMB Meeting- attended |
| 2015 | Gordon Conference Red Blood Cells New Hampshire |
| 2018 | University of Wisconsin Madison WI |
| 2019 | Session Head Gordon Conference Red Blood Cells Rhode Island |
|  |  |

**Invited Lectures/Seminars: OHSU**

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| --- | --- |
| **Year** | **Meeting (name, location)** |
| 1990 | Oregon Health & Science University School of Medicine, Dept. of Biochemistry |
| 1990 | Oregon Health & Science University School of Medicine, Dept. of Cell Biology and Anatomy |
| 1990 | Oregon Health & Science University School of Medicine |
| 1992 | Oregon Health & Science University School of Dentistry, Dept. Cell Biology and Anatomy |
| 1994 | Oregon Health & Science University School of Medicine Portland, OR, Dept. of Biochemistry |
| 1995 | Oregon Health & Science University, Dept. of Cell and Developmental Biology |
| 1995 | Oregon Health & Science University, Dept. Biochemistry |
| 1998 | Oregon Health & Science University, Molecular Biology Colloquium |
| 1999 | Oregon Health & Science University, Dept. Mol. Genetics |
| 1999 | Oregon Health & Science University, Dept. Physiology and Pharmacology |
| 2015present | Oregon Health & Science University, Dept. of Environmental Science and EngineeringOregon Health & Science University, Dept. of CDCB |

**VII. RESEARCH AND CREATIVE ACTIVITIES**

**Research Program:** An increasing number of human diseases have been attributed to mutations that result in the misfolding or mistargeting of essential proteins. The signals responsible for the targeting membrane proteins in the biosynthetic and endocytic pathways are of particular interest to my laboratory. In addition to studying the basic cell biology of protein trafficking within the cell, we examine the trafficking and function of the proteins implicated in hemochromatosis, the most common hereditary disease of people of European ancestry. Four proteins, hemojuvelin (HJV), matriptase 2 (MT2), HFE, and transferrin receptor 2 (TfR2) have been implicated in disorders of iron metabolism. Malfunctioning of three of these proteins results in the abnormal accumulation of iron in the body. Mutations in MT2 are associated with severe anemia. We are examining the intracellular trafficking and function of TfR2 and HFE proteins in the liver and how they participate to control iron homeostasis in the body.

**A. RESEARCH AWARDS AND GRANTS:**

**CURRENT**

|  |  |
| --- | --- |
| **Grant #** R37 DK54488 Caroline Enns (PI) | 03/01/10-2/29/20 |
| **Source**: NIH/NIDDK | $407,607 total/yr |
| **Title**: Function of the hemochromatosis protein  |
| The major goals of this program are to: The goal of this project is to test the hypothesis that the binding of HFE to the TfR is responsible for the altered iron homeostasis in cells |
| **Role**: PI  |

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| --- | --- |
| **Grant #** DK 072166 Caroline Enns (PI)  | 7/01/2012- 06/30/2020 |
| **Source**: NIH/NIDDK | $393,265 total/yr |
| **Title**: Regulation and function of transferrin receptor 2 |
| The major goals of this program are to: Transferrin receptor 2 (TfR2) is a newly described protein with sequence similarity to the classical transferrin receptor (TfR). The function of TfR2 is unknown. In contrast to TfR, TfR2 is found almost exclusively in hepatocytes and early erythroid progenitor cells. Mutated forms of TfR2 are implicated in a form of hereditary hemochromatosis which results in iron overload in the liver. The liver is a major iron-processing organ in the body and disturbances in iron homeostasis in this organ could affect iron absorption by the intestines. Structural changes associated with transferrin receptor 2 signaling |
| **Role**: PI  |

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| --- | --- |
| **Grant #** NIH R01 DK102791 An-Sheng Zhang PI, C. Enns Co-I  | Feb 2015-Jan 2020 |
| **Source**: NIH/NIDDK | $332,264 total/yr |
| **Title**: Role of Neogenin and Matriptase-2 in Hemojuvelin-Mediated Hepcidin Expression |
| The major goals of this program are to: Determine the role that neogenin plays in the regulation of Matriptase 2 |
| **Role**: C. Enns Co-PI renewal pending |

**Grant #** NIH GM122854 Aug 2017-Jul 2022

**Source:** NIH Kimberly Beatty PI

**Title:** New Technology for tracking proteins by light and electron microscopy (Kimberly Beatty PI)

The proposed research describes a new technology for labeling and imaging cellular proteins by fluorescence and electron microscopy. This technology is relevant to the mission of NIH to support the development of imaging technologies and chemical tools that will advance our understanding of how living systems function. Completion of the proposed research will result in a significant advance in the ability of researchers to investigate the nanoscale organization of proteins relevant to human health, including the cellular machinery involved in iron-uptake.

Role: Co-I 5% salary

B. PEER-REVIEWED PUBLICATIONS *(chronological order, oldest to most recent)*

***Published:***

1. Kaneshiro, C.M., **Enns, C.A**., Hahn, M.G., Peterson, J.S., and Reithel, F.J. 1975. Evidence for an active dimer of Escherichia coli beta-galactosidase. The Biochemical journal 151:433-434. [PMID: 766750](http://www.ncbi.nlm.nih.gov/pubmed/766750)

2. Chan, W.W., and **Enns, C.A**. 1978. Structure and function of aspartate transcarbamoylase studied using chymotrypsin as a probe. Canadian journal of biochemistry 56:654-658. [PMID: 352490](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+352490)

3. **Enns, C.A.**, and Chan, W.W. 1978. Stabilization of the relaxed state of aspartate transcarbamoylase by modification with a bifunctional reagent. The Journal of biological chemistry 253:2511-2513. [PMID: 24638](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+24638)

4. Chan, W.W., and **Enns, C.A.** 1979. Aspartate transcarbamoylase: loss of homotropic but not heterotropic interactions upon modification of the catalytic subunit with a bifunctional reagent. Canadian journal of biochemistry 57:798-805. [PMID: 383237](http://www.ncbi.nlm.nih.gov/pubmed/383237)

5. **Enns, C.A.**, and Chan, W.W. 1979. Conformational states of aspartate transcarbamoylase stabilized with a cross-linking reagent. The Journal of biological chemistry 254:6180-6186. [PMID: 376526](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+376526)

6. Chan, W.W., and **Enns, C.A.** 1981. Hybrid aspartate transcarbamoylase containing cross-linked subunits. Canadian journal of biochemistry 59:461-468. [PMID: 7028218](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+7028218)

7. **Enns, C.A.**, Shindelman, J.E., Tonik, S.E., and Sussman, H.H. 1981. Radioimmunochemical measurement of the transferrin receptor in human trophoblast and reticulocyte membranes with a specific anti-receptor antibody. Proceedings of the National Academy of Sciences of the United States of America 78:4222-4225. [PMID: 6270664](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6270664)

8. **Enns, C.A.**, and Sussman, H.H. 1981. Similarities between the transferrin receptor proteins on human reticulocytes and human placentae. The Journal of biological chemistry 256:12620-12623. [PMID: 6273397](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6273397)

9. **Enns, C.A.**, and Sussman, H.H. 1981. Physical characterization of the transferrin receptor in human placentae. The Journal of biological chemistry 256:9820-9823. [PMID: 6268632](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6268632)

10. **Enns, C.A.**, and Sussman, H.H. 1981. Characterization of the transferrin-binding protein in a human trophoblast. Placenta 3:23-32. [PMID: 6306643](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6306643)

11. **Enns, C.A.**, Suomalainen, H.A., Gebhardt, J.E., Schroder, J., and Sussman, H.H. 1982. Human transferrin receptor: expression of the receptor is assigned to chromosome 3. Proceedings of the National Academy of Sciences of the United States of America 79:3241-3245. [PMID: 6285343](http://www.ncbi.nlm.nih.gov/pubmed/6285343)

12. Behrens, C.M., **Enns, C.A.**, and Sussman, H.H. 1983. Characterization of human foetal intestinal alkaline phosphatase. Comparison with the isoenzymes from the adult intestine and human tumour cell lines. The Biochemical journal 211:553-558. [PMID: 6882358](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6882358)

13. **Enns, C.A.**, Larrick, J.W., Suomalainen, H., Schroder, J., and Sussman, H.H. 1983. Co-migration and internalization of transferrin and its receptor on K562 cells. The Journal of cell biology 97:579-585. [PMID: 6309864](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6309864)

14. Plowman, G.D., Brown, J.P., **Enns, C.A.**, Schroder, J., Nikinmaa, B., Sussman, H.H., Hellstrom, K.E., and Hellstrom, I. 1983. Assignment of the gene for human melanoma-associated antigen p97 to chromosome 3. Nature 303:70-72. [PMID: 6843660](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+6843660)

15. Nikinmaa, B., **Enns, C.A.**, Tonik, S.E., Sussman, H.H., and Schroder, J. 1984. Monoclonal antibodies to a purified human transferrin receptor. Scandinavian journal of immunology 20:441-447. [PMID: 6095440](http://www.ncbi.nlm.nih.gov/pubmed/6095440)

16. Larrick, J.W., **Enns, C.A.**, Raubitschek, A., and Weintraub, H. 1985. Receptor-mediated endocytosis of human transferrin and its cell surface receptor. Journal of cellular physiology 124:283-287. [PMID: 2995416](http://www.ncbi.nlm.nih.gov/pubmed/2995416)

17. **Enns, C.A.**, and Chan, W.W. 1987. Chemical stabilization of conformational states of aspartate transcarbamoylase. Methods in enzymology 135:569-577. [PMID: 3600310](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+3600310)

18. **Enns, C.A.**, Mulkins, M.A., Sussman, H., and Root, B. 1988. Modulation of the transferrin receptor during DMSO-induced differentiation in HL-60 cells. Experimental cell research 174:89-97. [PMID: 3422066](http://www.ncbi.nlm.nih.gov/pubmed/3422066)

19. Reckhow, C.L., and **Enns, C.A.** 1988. Characterization of the transferrin receptor in tunicamycin-treated A431 cells. The Journal of biological chemistry 263:7297-7301. [PMID: 3366781](http://www.ncbi.nlm.nih.gov/pubmed/3366781)

20. Root, B.J., Reckhow, C.L., Clinton, E.M., and **Enns, C.A.** 1988. Characterization of proteins that associate with an unglycosylated form of the transferrin receptor in A431 cells. The Journal of biological chemistry 263:19071-19076. [PMID: 3198612](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+3198612)

21. Do, S.I., **Enns, C.A.,** and Cummings, R.D. 1990. Human transferrin receptor contains O-linked oligosaccharides. The Journal of biological chemistry 265:114-125. [PMID: 2403553](http://www.ncbi.nlm.nih.gov/pubmed/2403553)

22. Vestal, D.J., Davis, B.H., and **Enns, C.A.** 1990. A rapid redistribution of the transferrin receptor to the cell surface of HL-60 cells and K562 cells upon treatment with dimethyl sulfoxide due to slowing of endocytosis. Archives of biochemistry and biophysics 276:278-284. [PMID: 2297227](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+2297227)

23. **Enns, C.A.**, Clinton, E.M., Reckhow, C.L., Root, B.J., Do, S.I., and Cook, C. 1991. Acquisition of the functional properties of the transferrin receptor during its biosynthesis. The Journal of biological chemistry 266:13272-13277. [PMID: 1906465](http://www.ncbi.nlm.nih.gov/pubmed/1906465)

24. Williams, A.M., and **Enns, C.A.** 1991. A mutated transferrin receptor lacking asparagine-linked glycosylation sites shows reduced functionality and an association with binding immunoglobulin protein. The Journal of biological chemistry 266:17648-17654. [PMID: 1894645](http://www.ncbi.nlm.nih.gov/pubmed/?term=1894645)

25. Hayes, G.R., **Enns, C.A.**, and Lucas, J.J. 1992. Identification of the O-linked glycosylation site of the human transferrin receptor. Glycobiology 2:355-359. [PMID: 1421757](http://www.ncbi.nlm.nih.gov/pubmed/1421757)

26. Williams, A.M., and **Enns, C.A.** 1993. A region of the C-terminal portion of the human transferrin receptor contains an asparagine-linked glycosylation site critical for receptor structure and function. The Journal of biological chemistry 268:12780-12786. [PMID: 8509412](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+8509412)

27. Rutledge, E.A., Green, F.A., and **Enns, C.A.** 1994. Generation of the soluble transferrin receptor requires cycling through an endosomal compartment. The Journal of biological chemistry 269:31864-31868. [PMID: 7989360](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+7989360)

28. Rutledge, E.A., Root, B.J., Lucas, J.J., and **Enns, C.A.** 1994. Elimination of the O-linked glycosylation site at Thr 104 results in the generation of a soluble human-transferrin receptor. Blood 83:580-586. [PMID: 8286753](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+8286753)

29. Hayes, G.R., Williams, A., Costello, C.E., **Enns, C.A.**, and Lucas, J.J. 1995. The critical glycosylation site of human transferrin receptor contains a high-mannose oligosaccharide. Glycobiology 5:227-232. [PMID: 7780197](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+7780197)

30. Rutledge, E.A., and **Enns, C.A.** 1996. Cleavage of the transferrin receptor is influenced by the composition of the O-linked carbohydrate at position 104. Journal of cellular physiology 168:284-293. [PMID: 8707864](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+8707864)

31. Hayes, G.R., Williams, A.M., Lucas, J.J., and **Enns, C.A.** 1997. Structure of human transferrin receptor oligosaccharides: conservation of site-specific processing. Biochemistry 36:5276-5284. [PMID: 9136890](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+9136890)

32. Lin, L., Ayala, P., Larson, J., Mulks, M., Fukuda, M., Carlsson, S.R., **Enns, C.A.,** and So, M. 1997. The Neisseria type 2 IgA1 protease cleaves LAMP1 and promotes survival of bacteria within epithelial cells. Molecular microbiology 24:1083-1094. [PMID: 9220014](http://www.ncbi.nlm.nih.gov/pubmed/?term=PMID%3A+9220014)

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