Curriculum Vitae for ELAINE FUCHS

Investigator Howard Hughes Medical Institute Rebecca C. Lancefield Professor Robin Chemers Neustein Laboratory of Mammalian Cell Biology and Development The Rockefeller University 1230 York Avenue Box 300, NY, NY 10065-6399 Tel 212-327-7953

EDUCATION AND TRAINING

University of Illinois B.S. Chemistry, 1972; Highest distinction in the curriculum. Ph.D., Biochemistry, 1977 (Professor Charles Gilvarg). Princeton University: Massachusetts Inst. Technology: Postdoctoral Fellow, 1977-80 (Professor Howard Green).

POSITIONS

1980-1985	Assistant Professor, The University of Chicago. Department of Biochemistry.	
4005 4000		

Associate Professor, The University of Chicago. Department of Biochemistry and 1985-1988 Molecular Biology: Department of Molecular Genetics and Cell Biology

Amgen Professor of Basic Sciences, The University of Chicago. Department of 1989-2002 Biochemistry and Molecular Biology; Department of Molecular Genetics and Cell Biology; Committee on Developmental Biology; Committee on Genetics; Committee on Cancer

Investigator, Howard Hughes Medical Institute, The University of Chicago. 1988-2002

2002-present Investigator, Howard Hughes Medical Institute, The Rockefeller University.

2002-present Rebecca C. Lancefield Professor, The Rockefeller University, Laboratory of Mammalian Cell Biology & Development

HONORARY DOCTORATES

(* denotes special importance)

Honorary Doctorate of Science Degree (Mt Sinai Sch. Medicine and New York University '03)

Honorary Doctorate of Science Degree (University of Illinois, Champaign-Urbana, '06)

Honorary Doctorate of Science (Albany Medical College '15)

*Honorary Doctorate of Science (Harvard University '16)

OTHER HONORS and AWARDS

(* denotes special importance)

University of Illinois. 1968-72

Phi Beta Kappa

Phi Kappa Phi Alpha Lambda Delta

Sigma Xi

Agnes Sloan Larson Award for the Outstanding Freshman Chemistry Student

Straight A Book Award

Iota Sigma Pi Award

Reynold Clayton Fuson Award in Chemistry

James Scholar

Illinois State Scholarship

Argonne National Laboratory Scholarship Bronze Tablet (top 3% Class).

Princeton University. 1972-77

NIH Predoctoral Fellowship.

Massachusetts Institute of Technology. 1977-79

Damon Runyon Postdoctoral Fellow

University of Chicago. 1980-01

Andrew Mellon Fellow ('81)

*Searle Scholar ('81-'83)

NIH Career Development Award ('82-'87)

*Presidential Young Investigator ('84-'89)

Nation's 100 brightest scientists under 40 (Science Digest, '84)

Nation's Outstanding Scientists Lunch, White House ('85)

R.R. Bensely Award (American Association of Anatomists, '88)

Searle Scholar Alumnus Award Lecture ('91)

NIH Merit Award ('93-'03)

Montagna Award (Society for Investigative Dermatology, '95)

Keith Porter Lecture (American Society for Cell Biology '96)

Senior Women's Career Achievement Award (American Society for Cell Biology '97)

Harvey Lecture (Rockefeller University, '99)

Convocation Address University of Chicago ('99)

Hermann Pinkus Memorial Lecture Award (American Academy of Dermatopathology, '00)

*Richard Lounsbery Award (National Academy of Sciences, '01).

Rockefeller University. 2002-:

Cartwright Prize (Columbia University, '02)

Cruikshank Memorial Lecturer (Gordon Research Conferences on Cell Adhesion, '02)

Novartis Award in Biomedical Research (shared with P. Sharp and D. Botstein, '03)

Distinguished Visiting Scientist (Singapore, '04)

*Dickson Prize in Medicine ('04)

FASEB Award for Scientific Excellence ('06)

Beering Award ('06)

Lecturer, College de France (by Invitation of the Assembly of Professors, '08)

Rothschild-Yvette-Mayent Visiting Scholar of the Institut Curie ('08)

NIH MERIT Award ('09-)

*** National Medal of Science (Awarded by President Barak Obama, '09)

Distinguished Investigator Award (Emerald Foundation, '10)

Visiting Scholar of Phi Beta Kappa ('10)

AACR-WICR Charlotte Friend Award ('10)

**L'Oreal UNESCO Award For Women in Science ('10)

Convocation Address University of Illinois ('10)

Madison Medal (Princeton University '11)

Passano Award ('11)

**Albany Prize in Medicine ('11)

Rockefeller University Teaching Award ('12)

New York Academy of Medicine (Basic Sciences and Medicine Award, '12)

*March of Dimes Prize in Developmental Biology ('12)

Lifetime Achievement Award (American Skin Association '13)

Kligman-Frost Leadership Award (Society of Investigative Dermatology '13)

*Pasarow Award for Cancer Research ('13)

**Pezcoller Award for Cancer Research ('14)

Convocation Address Albany Medical College ('15)

*EB Wilson Award (American Society of Cell Biology '15)

*Vanderbilt Prize ('17)

Ricketts Award (U of Chicago, '17)

**McEwen Award for Innovation (International Society for Stem Cell Research, '17).

*Commissioned Portrait: Princeton University's Hall of Distinguished Alumni ('19)

*G. H. A. Clowes Award (AACR, '19)

2019 Princess Takamatsu Lecturer in Japan

*Bloch Award for Cancer Research (Ohio State University, '19)

***Gairdner International Award ('20)

EW Bertner Memorial Awd (MD Anderson Cancer Ctr '21)

Bert & Natalie Vallee Award in Biomedical Science (ASBMB, '22)

Shacknai Award in Immunology and Cancer Research (Hebrew University, '22)

**Benjamin Franklin Medal in Life Sciences ('23)

Elected to Honorary Societies:

*American Academy of Arts and Sciences ('94)

**National Academy (Institute of) Medicine of the National Academies of Sciences ('94)

***National Academy of Sciences ('96)

Fellow, American Academy of Microbiology ('97)

Honorary member of the German Society of Dermatology ('01)

The Harvey Society ('04)

Fellow, New York Academy of Sciences ('04)

**American Philosophical Society ('05)

Fellow, American Association for the Advancement of Science ('08)

*EMBO Foreign Member (equivalent of the European National Academy of Sciences) ('10)

*Academy of the American Association for Cancer Research ('13).

Academy of the American Society for Cell Biology ('16).

**Pontifical Academy of Sciences (appointed by Pope Francis, '18)
National Academy of Inventors ('19)

***Royal Society foreign member ('19)

HONORARY/NAMED LECTURES, KEYNOTE ADDRESSES, PLENARY LECTURES, SEMINARS (2017-23)

Honorary/Named Lectures 2017

Distinguished (CNIO Madrid) Marchionini (Hamburg) Novy (UC Davis)

Discovery (Vanderbilt U)

Aser Rothstein (U Toronto)

Cyma Rubin Women in Science (Cornell U Med Sch)

Distinguished (UCLA); Distinguished (Oklahoma Med Res Fnn)

Ricketts (U Chicago)

ISSCR Ann Mtg McEwen Lect for Innovation

Barton Childs(Johns Hopkins U)

Henry Maso (Soc. Cosm. Chemists)

2018

Naidorf (Columbia U)

Gould (Rutgers)

Distinguished (NIEHS)

Nicholson (Karolinksa)

McClintock (CSHL)

2019

Max Birnsteil (IMP, Vienna)

Princess Takamatsu Lectureship in Cancer Research (Tokyo, Hokkaido U, Kyoto U)

AACR AHG Clowes Lect

Kewaunee (Duke)

Max Delbruck Ctr (Berlin)

Bloch Mem Awd Lect (Ohio State)

2020

Milstein (Cambridge UK, MRC,'20)

Gairdner Natl (Montreal)

Gairdner PhD Student (Montreal)

Gairdner Intl Awd Lect (U Toronto)

William Barr (Western Ontario U)

Wilkins Professorship (Boston U)

Woese (U III)

Breaking News (UCSD)

2021

Ashley Dunn Oratory (Lorne Cancer Ctr., Australia)

Parker (Columbia)

Mihich (Roswell Park)

EW Bertner (MD Anderson)

EMBO Women in Science (Spetses)

2022

Rennels Distinguished Lect (UT San Antonio)

Chipperfield (MIT)

Distinguished (Northwestern)

Shacknai Award Lecture (Nazareth)

Leland Cheung Lecture (SBUR)

2023

Distinguished Lecture in Cell and Developmental Biology (NIH)

Vallee Foundation Lecture (WEHI Institute, Melbourne)

Ben Franklin Institute Medal Lecture (U Penn)

EMBO lecture, Stem Cells and Cancer Gordon Conference Stilliman Lecture (Yale)

Keynote Addresses at Scientific Meetings

2017

Epithelial Biology_Gord Conf

Cell Growth & Proliferation Gord Conf

Symp Honoring Susan Lindquist (MIT)

ENABLE Symp (Barcelona)

Princess Takamatsu Cancer Symposium (Plenary, Tokyo)

German Consortium of Stem Cell Biologists Ann Mtg (Jena, Germany)

Neurofibromatosis Ann Mtg (Washington DC)

2018

Stem Cells and Their Niches Gord Conf

Harvard Epigenetics Symp

DFKZ Symp on Cancer & Stem Cells (Heidelberg)

ASCB Stem Cells Under Stress ('18)

Yale Immunobiology Retreat

Alopecia Areata Annual Mtg.

2019

Stem Cells & Cancer Gord Conf

Epithelial Biology Gord Conf ('19)

Cancer & Metastasis Keystone Symp (Florence'19)

UNM Res Day

Forum on Regenerative Med (NYAS and Natl Acad Sciences)

Regional Dev Biol Mtg Woods Hole

Champlimaud Symp (Lisbon)

2020

Genetics Soc of Amer Ann Mtg

Res Day (Dalhousie Univ)

2021

FASEB TGFß Superfamily in Dev. and Disease

VISSCR Annual Mtg: President's Symp.Intl Conf of the Korean Soc for Mol and Cell Biol (Seoul)

Singapore Ann Derm Soc; Stem Cells & Cancer Symp (Barcelona)

Sanford Stem Cell Symp (UCSD)

Cambridge UK Stem Cell Inst Student Ret (Cambridge)

CRC Symp (Koln)

2022

American Soc. Bioch & Mol Biol. (Phila.)

Human Cell Atlas Mtg (Vienna)

Stem Cells Student Symposium (U Toronto)

Mina Bissell Symposium (Weil Cornell)

Rutgers Cancer Institute Annual Retreat

Wound Healing Symposium (IWH)

2023

Digestive and Liver Disease Center Symposium (Columbia U) Metastasis and Cancer Symposium (Columbia U).

Plenary Lectures

2017

Stem Cells & Cancer Gord Conf Stem Cells & Cancer Gord. Conf ISSCR Ann Mtg Plenary Symp

2018

Amer Assn for Cancer Res Annual Mtg Les Treilles (France) Translational Medicine, U Penn Mechanotransduction Symp(Singapore) Cancer Symp (Singapore)

2019

Usha Mahajani Symposium (Salk Inst.) Epithelial Biology Gord. Conf Boston Children's Hosp 15th Annual Stem Cell Symp (Harvard Med Sch)

2020

AACR Regional Mtg (San Diego) Canada Stem Cell Mtg (Vancouver) ISSCR Ann Mtg Plenary Symp

2021

National Acad of Future Phys and Med Students Symp Gairdner Symp for MD/PhD Students Starr Cancer Symp American Phys Soc Cell Press and Westlake Univ Cancer Cell Plasticity Symp (China) World Laureates Forum (China)

2022

Amer Soc of Clinical Invest (Webinar)

TERMIS (Netherlands)

Vatican Workshop on Stem Cells

Keystone Mtg: Innate Immune Memory (Banff)

Vallee Scholars Mtg (Lisbon); AACR Meet the Experts (New Orleans)

Frontiers in Stem Cell Biology Mtg (Dead Sea, Israel)

Gairdner Stem Cell Symposium (U Calgary)

2023

Lorne Cancer Symposium (Australia)

Gordon Res. Conf. Epithelial Biology (Spain)

Cold Spring Harbor 87th Symposium in Quantitative Biology: Stem Cells; Cancer & Metastasis (CSHL) Stem Cells Conf (Les Treilles).

Regular Seminars

2017-2019

U Penn, Vanderbilt Univ

Fred Hutchison Cancer Ctr

Dana Farber Cancer Ctr

UTSW Dallas

Genentech

Salk Inst, Duke Univ

Univ of North Carolina

MIT

Harvard Med Sch

Univ of Virginia

New York Univ

Yale Univ

Columbia Univ

MD Anderson

Ohio State

Johns' Hopkins Univ

Stanford Univ

Rockefeller Univ

Univ of Illinois Chicago

National Institutes of Health

CSHL

Thomas Jefferson Univ

Max Planck Institute (Dresden, Freiburg)

Cancer Ctr (Harvard Med Sch)

U Vienna Cancer Inst

U Toronto, INSERM (Marseilles)

Crick Inst (London)

IRB Barcelona

Calico

Toronto Derm Soc

Case Western

Wash U

UC Irvine

UC Berkeley

UCSD

Mt. Sinai Sch Med

UCSF

Buck Inst

Surrozen

2020

Gurdon Inst Cambridge

Burnham Cancer Inst, Scripps Cancer Inst

MD Anderson Cancer Biol Series

Grand Rounds at Cancer Ctr at Ohio State U

Mechanobiology and Gene Expression Seminar Series (International)

U Illinois at Chicago

U College London Netherlands Cancer Inst Dana Farber/Harvard U Cancer Ctr U Illinois Urbana UCSD Breakthrough Webinar

2021

MUSC

Rockefeller U Monday Lect,

U Washington

Intl Intermediate Filament Webinar Series

Leuven VIB-U Brussels

Regeneron

Gladstone Inst/UCSF

Laval Univ

U Ottowa

Gordon Conf Lectures in Skin Biology

Intl Mechanobiology Series

2022

UCLA

UC Irvine

U Virginia

Weizmann Institute

La Jolla Immunology Institute

2023

Murdoch Children's Research Institute (Melbourne) SNF Institute for global infectious diseases (Rockefeller) Stem Cell Faculty Forum (MSKCC) Northwestern University.

NATIONAL/INTERNATIONAL COMMITTEES/ADMINISTRATIVE RESPONSIBILITIES

Presidents of Societies

American Society for Cell Biology, 2001.

Harvey Society, 2007

International Society for Stem Cell Research, 2010.

Editorial Positions

Editorial Board, Journal of Cell Biology, '88-'92; *Academic Editor, Journal of Cell Biology, '93-;

Special Advisory Editor, Journal of Clinical Investigation, '92-'98;

Editorial Board, Genes and Development, '00-;

Editorial Board, Developmental Cell, '01-;

Editorial Board, Cell, '01-;

Editorial Board, Cell Stem Cell, '07-;

Editorial Board ELife, '12-

Board of Trustees and Board of Directors

Board of Trustees Cold Spring Harbor Laboratories, 2019-.

International Society for Stem Cell Research Board of Scientific Directors, '06-16; Executive Committee; '08-'12.

American Association for Cancer Research Board of Directors 2020-2023.

New York Academy of Sciences Board of Governors, 2011-2020.

Damon Runyon Cancer Foundation, 2002-.

Founding Board Member of the Rosalind Franklin Society;

Scientific Advisory or Review Boards

Past

Searle Scholar Review Board, '93-'95; Chair, Searle Scholar Review Board, '96-'98;

Recruitment Board, Stower's Institute, '98-'00;

Burroughs Welcome Young Investigator Review Board, '98-'05;

Scientific Advisory Board, RIKEN Developmental Biology Institute, Kobe, Japan, '01-'06;

Scientific Advisory Board, Whitehead Institute, '03-'09;

Scientific Review Board, Jane Coffin Childs Foundation, '03-'15;

Scientific Review Board Cell Biology, Weizmann Institute, November, '05;

Scientific Advisory Board, Sirna Pharmaceutical Company, '05-'07;

Scientific Advisory Board, CBRI Institute for Biomedical Research, Harvard Med, '06-'12;

External Advisory Board, NYU ('08);

Scientific Advisory Board, Johnson & Johnson ('10-13);

Scientific Advisory Board MIT ('09-'16);

Scientific Advisory Board, Sick Kids University of Toronto ('17)

Scientific Review Board VIB, Belgium ('10, '20),

Scientific Advisory Board, Sackler Foundation ('15-17)

Investigator Council, Howard Hughes Medical Institute ('18-'20)

Scientific Advisory Board, University of Utah Cancer Center ('12-'22);

Scientific Advisory Board, L'Oreal ('13-'20).

Scientific Advisory Board, Arsenal Biosciences ('18-'22)

Current

Scientific Advisory Board, IMBA Vienna ('12-); Chair of the Board ('18-)

Scientific Advisory Board, Northwestern Skin Center ('15-)

Scientific Advisory Board, Massachusetts General Hospital, Harvard Medical School ('17-)

Scientific Advisory Board, University of Cambridge Cancer Center CRUK ('18-)

Scientific Advisory Board, Klarman Cell Observatory, Broad Institute ('18-)

Sanford Stem Cell Institute UCSD ('23-)

Award Committees

General Motors Foundation Awards, 2004-'06;

Selection Committee, Richard Lounsbery Award, NAS, '97, '10; Chair, '05

Pezcoller Foundation Award 2007 and 2010

Chair, AACR OAR/Clowes Awards 2008;

Jury L'Oreal-UNESCO Award 2011

Albany Prize Selection Committee 2013-.

Blavatnik Awards Selection Committee 2013; Chair Life Sciences, 2018-2020

Vallee Foundation Scholars, 2015-

Janssen Prize, 2022-; Chair 2023-

Elected Posts

American Society for Cell Biology, '89-'92 Council

National Academy of Sciences, Council '01-'04;

Class II Membership Committee, '05; '08.

American Association for Cancer Research, Regional AACR Transcription Meeting Organizing Committee, '94, '97;

Nominating Committee, '07-

National Academy of Medicine, Council, '14-'18

AACR Takamatsu Memorial Lectureship Committee, 16

Fellow of the AACR Academy, '16-

Chairperson, Clarkson Symposium, '17

AACR Academy Steering Committee, '19-

Board of Directors AACR, '20

Appointed Posts

Correspondent, NAS Committee on Human Rights, '95-

Program Committee, ASBMB International Meeting, '95

Nominating Committee, ASBMB, '91, '94; Chair, '95

ASCB Program Committee, '89; '92; '08; '15

Special Reviewer: Ad-hoc, NIH site visits, and postdoctoral fellowships, '85-87

Nominating Committee, ASCB, '92, Chair, '94

Program Committee, ASCB International Meeting, '96, '97

Vice-Chair and Chair, Epithelial Biology Gordon Conference, '99, '01

Chair, Molecular Cell Biology Gordon Conference, '99

Co-chair, Keystone Symposium on the Cytoskeleton, '00

ASCB Program Committee, '09

Nominating Committee ISSCR,'11

Committee Human Rights of the NYAS, '11-

Advisory Workshop to the Vatican on Stem Cells (Vatican City, '12)

ASCB Committee to Prepare a "White Paper" advising NIH on prioritizing funding initiatives for stem cell research, '13)

Vanderbilt Prize Selection Committee, '18-

Vallee Foundation Scholar's Program, '18-

Program Chair 2017 ISSCR Annual Mtg

Program Committee 2021 ISSCR Annual Mtg

National Institutes of Health, National Cancer Institute, Advisory Council, Scientific Review Panels, Study Sections

Physiological Chemistry Study Section, '83-'86

Advisory Council to the NIH Director, Dr. Harold Varmus, '96-'00

Scientific Review Panel to review the Intramural Program at NIAMS, '97

Scientific Review Panel RFA on Cancer Stem Cells, '08

NIH Special Grant Review Panel ACTS, NIAMS, '08

Scientific Special Review Panel, President's Stimulus Package Challenge Grants, '09

RFA CA-11-011 and 012 "Research Answers to Provocative Questions" Study Section

National Cancer Institute, '11

NIH K-Awards Young Investigator Review Panel ACTS, NIAMS, '16

HHMI Investigator Review, '16, '20

Special Review Panel NIAMS, '19, '21)

UNIVERSITY ADMINISTRATIVE EXPERIENCE

The University of Chicago

University-Wide

Council of the Senate. '87-90

President's Committee to Develop a 5 Yr Plan of Intellectual & Financial Priorities, '87

University Disciplinary Committee, '96-02 Council on Research, '97-02 Interdivisional Building Committee, '00-'02

Divisional

Chair, Committee to Reorganize the Basic Sciences within the Division of Biological Sciences, '94-95 Dean's Advisory Committee to Set Priorities for Division of Biological Sciences, '96-02

Chair, ACS Institutional Research Grant Committee: '85-90

PI, Cancer Biology Training Grant, '88-02

PI, Molecular Biology Section, NIH Cancer Center Grant, '90-02

Executive Committee, Cancer Center, '91-02

Steering Committee, Cancer Biology Committee, '96-02

Chair, Curriculum Committee for Developmental Biology, '98-02

Chair, Senior Cell Biology Search Committee, '00-02

Departmental

Graduate Admissions Committee, MGCB '88-93

Faculty Recruitment Committee: BMB and MGCB; '84-93

Chair (MGCB), '93, '96

Chairman's Advisory Committee (MGCB), '92-02

Promotions and Appointments Committee (MGCB), '92-95

Curriculum Committees, MGCB, BMB '95-02.

The Rockefeller University:

Friday Lecture Series Committee Chair, '03-05; '23-

Executive Committee of the Academic Council, '03-06

Tri-Institutional Stem Cell Institute Initiative, '04-

Faculty Recruitment Committee Chair, '05-06

Honorary Degree Committee, '07-

Faculty Budget Advisory Committee, '09

Women in Science Breakfast Speaker, '13; '18

Women in Science Annual Luncheon Speaker, '14; '23

Postdoctoral Fellowship Awards Committee Chair, '10-'14

Lecture Policy Committee Chair.'12

Faculty Recruitment Committee, '12-

MidCareer Hiring Committee, '13-

Nominating Committee, Nicholson Lect, '19-

Executive Committee of the Academic Council, '11-'14

Chair of the Academic Council and Senate. '13-'14

Academic Council, '19

Organizer and Founder, Rockefeller University Retreat on Stem Cells, '15-

TEACHING

Graduate Molecular Biology II: Eukaryotic Gene Expression (MGCB 313) '81-'95.

Graduate Advanced Cell Biology I: (MGCB 316) '95-'02.

Invited Lecturer: Cell Physiology Course, Woods Hole, Mass., '87-'89; Cell Biology Course, Northwestern Med. School, '87-'90; Cell Biology Course, Harvard University, '88; Philips Lecturer, Haverford College, '92; Storer Life Science Lectureship, University California Davis, '95; Stem Cell Course at Cold Spring Harbor, '04.

Graduate Cell Biology (team-taught), Sloan Kettering/Cornell Medical School, '04-

Graduate Cell Biology guest lecturer, Rockefeller University, '04-Graduate Developmental Biology guest lecturer, Rockefeller University, '10-15 College de France, Paris, January, 2008.

Graduate Stem Cells in Tissue Morphogenesis and Cancer Course, Rockefeller University, '09; '11; '13 (received Rockefeller Teaching Award for this course, '11; co-taught w/Ali Brivanlou); '15; '17; '19; '21, '23.

Graduate Course in Human Genetics, Rockefeller University, '17, '19, '21, '23. International Delegation to Provide Career Education to Top High School Students in China, '12. Graduate Course in Developmental Biology, EMBO Lecture for Women in Science. Spetsai, Greece '16; '21.