

ELAINE FUCHS

Investigator Howard Hughes Medical Institute
Rebecca C. Lancefield Professor of the Laboratory of Mammalian Cell Biology and Development
The Rockefeller University; 1230 York Avenue Box 300, NY, NY 10065-6399
Tell# 212-327-7953; <http://www.rockefeller.edu/labheads/fuchs/intro.php>

EDUCATION AND TRAINING:

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

POSITIONS:

1980-1985 Assistant Professor, The University of Chicago. Department of Biochemistry.
1985-1988 Associate Professor, The University of Chicago. Department of Biochemistry & Molecular Biology;
Department of Molecular Genetics & Cell Biology
1988-1993 Associate Investigator, Howard Hughes Medical Institute, The University of Chicago.
1989-1993 Professor, The University of Chicago. Department of Biochemistry & Molecular Biology; Department
of Molecular Genetics & Cell Biology; Committee on Developmental Biology; Committee on
Genetics; Committee on Cancer Biology.
1993-2002 Investigator, Howard Hughes Medical Institute, The University of Chicago.
1993-2002 Amgen Professor of Basic Sciences, The University of Chicago.
2002- Professor, The Rockefeller University, Laboratory of Mammalian Cell Biology & Development
2002- Investigator, Howard Hughes Medical Institute, The Rockefeller University.
2003- Rebecca C. Lancefield Professor, The Rockefeller University.

HONORS & AWARDS (* denotes special importance)

1968-72: **University of Illinois.** 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).
1972-77: **Princeton University.** NIH Predoctoral Fellowship.
1977-79: **Massachusetts Institute of Technology.** Damon Runyon Postdoctoral Fellow
1980-01: **University of Chicago.** 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), Endowed Professorship ('93-'02), *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), *Hermann Pinkus Memorial Lecture Award (American Academy of
Dermatopathology, '00), *Richard Lounsbery Award (National Academy of Sciences, '01).
2002-10: **Rockefeller University.** Cartwright Prize (Columbia U, '02); Cruikshank Memorial Lecturer (Gordon
Research Conferences on Cell Adhesion, '02); *Honorary Doctorate of Science Degree (Mt Sinai Sch.
Medicine and New York U. '03); *Novartis Award in Biomedical Research (shared with P. Sharp and D.
Botstein, '03); Distinguished Visiting Scientist (Singapore, '04); **'04 Dickson Prize in Medicine;
*FASEB Award for Scientific Excellence ('06); *Honorary Doctorate of Science Degree (University of
Illinois, Champaign-Urbana, '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);
Visiting Scholar of Phi Beta Kappa ('09-10), NIH MERIT Award ('09-), ** National Medal of Science
('09), **L'Oreal UNESCO Awards For Women in Science ('10)
1994-08: **Elected to Honorary Societies:** *American Academy of Arts and Sciences ('94); *Institute of Medicine
of the National Academy 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).

Honorary Lectures, Named Lectureships (2002-'09): Richard Lounsbery Lecture (Sackler Symposium on Regenerative Medicine, NAS, '02); Mirsky Lecture (Rockefeller U, '02); Gladstone Lecture (UCSF, Jan, '02); Distinguished Lecturer (U Toronto, '02); Cartwright Lecture (Columbia U, '02); Drummond Lecture (U Calgary, Canada, '02); Rachford Lecture (U. Cincinnati, '03); VanZant Lecture (Rice U, '03), Menton Lecture (U Pittsburgh, '03); Distinguished Scientist (EMBL, Heidelberg & Monterotondo '03), Distinguished Lecturer (UCLA, '04), Distinguished Lecturer (Lawrence Berkeley Labs, '04); Discovery Lecture (Johns Hopkins U, '05); Enders' Lecture (Harvard Med. Sch., '05); Kroc Lecture (Harvard Medical School, '06); Gerald Aurbach Lecture (ASBMR Mtg, '06), Beering Award Lecture (U. Indiana Med Sch, '06), Sokolow Lecturer (UCSF, '07); Discovery Lecturer (Vanderbilt U, '07), Niewand Lecturer (U Notre Dame, '07); Blaffer Seminar (MD Anderson, '07); Myron Levine Lecture (U Michigan, '07), Pittman Lecture (NIH, '08); Dorcas Cummings Lecture (CSH Symposium on Stem Cells('08); Chandrakant Dave Lecture (Roswell Park Cancer Institute, '08); Distinguished Lecturer (SUNY Buffalo, '08); Arthur Partite Lecture (Woods Hole; '08); The Ritter Lecture (U Georgia, '08); Meyenburg-Stiftung Lecture (German Cancer Res. Center, '08); Sharon Cosloy-Edward Blank Lecture (CUNY, '08); Distinguished Lecturer (McGill University, '09); Dean's Lecture (Radcliffe University, '09), Proctor & Gamble Lecture (UCincinnati, '09).

Keynote/Opening Speaker (2002-'09): Stem Cell Meeting (Villars, Switzerland, '02); Phosphorylation and Signaling Meeting (Cold Spring Harbor, '03); Cell Adhesion and Signaling (Obernai, France, '03); U Penn Graduate Student Symposium ('03); Society for Developmental Biology Annual Meeting (Calgary, Canada, '04), Whitehead Retreat ('04); Gordon Conference on Epithelial Biology (Italy, '05); Harvard Medical School, Dept Pathology Retreat ('05); Keystone Mtg on Transcription ('06); National Arts Association ('07), UCSD Graduate Student Retreat ('07); Opening Session, 100th Anniversary Meeting of the American Assn. of Cancer Research ('07), Soc Dev Bio Regional Mtg (Princeton, '07); ADF Mtg (Erlangen, Germany, '08); American Association of Physicians and The American Society for Clinical Investigation (Chicago, '09), Wnt Signaling, Stem Cells and Cancer Mtg (Xiamen, '09); CRG Stem Cell Meeting (Barcelona '09), Oesper Symp (UCincinnati, '09).

Plenary Lectures/Platform Sessions (2003-'09): Epithelial Biology Symp.(Timberline, Ore, '03), Dev Bio Symp. (CDB RIKEN Inst, Japan, '03), Organogenesis Symp. (U. Michigan, '03), Stem Cells, Development and Cancer Symp. (MIT, '03), Organogenesis and Cancer Symp. (Salk Institute, '03), Keystone Symp. (Mouse Models of Cancer, '04), Gordon Conference Cell Adhesion ('04; '06); Intermediate Filaments Gordon Conference (Oxford, England, '04); ISSCR Stem Cell Meeting (Boston, '04), American Society for Matrix Biology (San Diego, '04), Cell Adhesion and Cancer (Madrid, '04), Stem Cells & Regenerative Medicine (Columbia U, '04; NIH, '04), IF Gordon Conference (Oxford, '04); Keystone Stem Cell Mtg (Banff, '05); Keystone Microenvironment & Cancer and Development Joint Mtg (Banff, '05); ISSCR Mtg (San Francisco, '05); Keystone Stem Cell Meeting (Singapore, '05), Systems Biology & Stem Cells (MIT, '06); Craniofacial Gordon Conference (Ventura, '06); Keystone Wnt Meeting (Banff, '06); ASBMB Meeting ('06), Cold Spring Harbor Mouse Genetics ('06); ISSCR Mtg (Toronto, '06), MD Anderson Symp. on Cancer and Stem Cells ('06), ASCB Mtg (San Diego, '06), Keystone Mtg on Stem Cells ('07), Keystone Mtg on Mouse Models of Cancer ('07); Stem Cell Symp. (UCLA, '07); Stem Cell Symp. (Calgary, '07); Keystone Mtg on TGF β Signaling ('08), Keystone Mtg on Wnt Signaling and Cancer ('08); Mouse Genetics Mtg (Cologne, Germany, '08), Cancer & Stem Cells Symp (UCSF, '08); CSHL Symp on Stem Cells ('08); Gordon Conference Adhesion ('08); Developmental Biology Symposium (Institut Curie, '08); Stem Cells and Cancer Symposium (Institut National du Cancer, '08); Australian Health and Medical Research Congress (Brisbane, '08); CNIO Stem Cells and Cancer Symposium (Madrid, '09); Evans Scholar Symposium (Boston U, '09); Keystone Symp on MicroRNAs ('09), Epithelial Biology Gordon Conference ('09), EMBO Mtg (Amsterdam, '09), Wnt Mtg (Goettingen, '09), AACR Mtg Cancer and Stem Cells (Boston, '09).

Additional Seminars (2005-'09): UCSF, UCLA, Scripps Research Institute, University of Pennsylvania, Stanford, Cold Spring Harbor, Princeton U, National Institutes of Health, Fox Chase Cancer Center, Imperial Cancer Research Fund (London), Vanderbilt U, Curie Institute (Paris), UC Davis, Tularik, Fred Hutchison Cancer Center, Dana Farber Cancer Institute, Pfizer/U. Michigan, Biozentrum (Basel), UT Southwestern Dallas, U. California Irvine, U. New Mexico Sch. Med, Boston U, U Southern California, Amgen, Weizmann Institute (Rehovot), Genentech, U. Wisconsin, Cornell U (Ithaca), U. California Riverside, U. California San Diego (2X), California Institute of Technology, Salk Institute, Duke U, U North Carolina, Massachusetts Institute of Technology (2X), Harvard Medical School (X3), INSERM, Strasbourg; U Paris; Institut Pasteur, Institut Curie, Burnham Institute, Mt. Sinai School of Medicine, Yale U, Columbia University, U Buffalo, U Virginia, National Jewish Medical Center, New York University, U Massachusetts, McGill U; Stower's Institute.

NATIONAL COMMITTEES/ADMINISTRATIVE RESPONSIBILITIES:

Elected Posts in National/International Societies: Council, American Society for Cell Biology, 1989-'92; *President, American Society for Cell Biology, 2001; *Council, National Academy of Sciences, 2001-'04; Council, International Society for Stem Cell Research, 2006-; Class II Membership Committee, NAS, 2005; Nominating Committee of the American Association for Cancer Research, 2007-'10; Board of Scientific Directors, International Society for Stem Cell Research (ISSCR); Vice President, Harvey Society, 2006; President, Harvey Society, 2007-8; Vice President, ISSCR (2008); Class II Membership Committee, NAS, 2009; President-Elect, ISSCR (2010).

Appointed Committees/Posts in National/International Organizations: Correspondent, Committee on Human Rights of the NAS, NAE and IOM, '95-; Program Committee, ASBMB International Mtg, '95; Nominating Committee, ASBMB, '91, '94; Chair, '95; ASCB Program Committee, '89; '92; '08; Special Reviewer: Ad-hoc, NIH site visits, and postdoctoral fellowships, '85-87; Organizing Committee, AACR Transcription Meeting, '94, '97; Nominating Committee, ASCB, '92; Chair, '94; Program Committee, ASCB International Mtg, '96, '97; Review Panel, NIAMS, '97; Selection Committee, Richard Lounsbery Award, NAS, '97; Chair, 2005; Vice-Chair and Chair, Epithelial Biology Gordon Conference, '99, '01; Chair, Molecular Cell Biology Gordon Conference, '99; Co-chair, Keystone Symp. on the Cytoskeleton, '00; Selection Committee, General Motors Foundation Awards, 2004-'06; Selection Committee, Pezcoller Foundation Award ('07); Chair, AACR OAR/Clowes Awards ('08); ASCB Program Committee ('09).

Scientific Boards: Searle Scholar Review Board, '93-'95; Chair, Searle Scholar Review Board, '96-'98; Advisory Council to Dr. Harold Varmus, the Director of the NIH '96-'00; Recruitment Board, Stower's Institute, '98-'00; Burroughs Wellcome 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-; Board of Directors, Damon Runyon Cancer Research Foundation, '04-; 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-; Founding Board Member of the Rosalind Franklin Society; Scientific Review Board, Life Sciences, European Research Council, '09-'13; NCI RFA Panel Stem Cells ('08); NIH Special Panel ACTS ('08); Challenge Grants ('09); External Advisory Board, NYU ('08); Medical Advisory Board, NYSCF ('07-); Scientific Advisory Board MIT ('09-).

Editorial Positions: Editorial Board, Journal of Cell Biology, '88-'92; *Associate 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-;

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:

Chair, Seminar Series Committee, '03-05; Executive Committee of the Academic Senate, '03-06; Council, Academic Senate, '03-06; Tri-Institutional Stem Cell Institute Initiative, '04-; Chair, Faculty Recruitment Committee, '05-06; Honorary Degree Committee, '07-; Faculty Budget Committee, '09.

TEACHING EXPERIENCE:

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, U. 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 (team-taught), Rockefeller University, '04-

College de France, Paris, January, 2008.

http://www.college-de-france.fr/default/EN/all/gen_phy/p1031153502713.htm

Graduate Stem Cells in Tissue Morphogenesis and Cancer Course, Rockefeller University, '09

ORGANIZATIONS/SOCIETIES:

American Society of Cell Biology (President, 2001), Phi Beta Kappa, American Society for Biochemistry and Molecular Biology, American Academy of Dermatology, American Society for Microbiology, American Society for Developmental Biology, American Academy of Arts and Sciences, Institute of Medicine of the National Academy of Sciences, National Academy of Sciences (Council, 2001-2004), American Association for Cancer Research, American Association for the Advancement of Science, International Society for Stem Cell Research.

GRANTS/CONTRACTS:

NIH AR27883 (30), Cell adhesion and cytoskeletal dynamics in skin. 12/1/80-11/30/13). MERIT AWARD.

NIH AR31737 (27), Regulation of epidermal differentiation and development. 7/1/83-6/30/11.

NIH AR050452 (06), Skin stem cells: purification and characterization. 12/01/03-6/30/14.

**Howard Hughes Medical Institute* (Investigator, '88-).

BIBLIOGRAPHY: Peer-Reviewed Articles (*denotes recent and past-top papers).

1. *Nguyen H, Merrill BJ, Polak L, Nikolova M, Rendl M, Shaver TM, Pasolli HA, **Fuchs E**. Tcf3 and Tcf4 are essential for long-term homeostasis of skin epithelia. Nat Genet. 2009.
2. MicroRNA-mediated control in skin. Yi R, **Fuchs E**. Cell Death Differ 2009 Jul 17. [Epub ahead of print]
3. Epidermolysis bullosa simplex: a paradigm for disorders of tissue fragility. Coulombe PA, Kerns ML, **Fuchs E**. J Clin Invest **119**: 1784-93 (2009)
4. Building confidence: the transition from student to professor. **Fuchs E**. Nature Cell Biol **11**:786 (2009).
5. Finding One's Niche in the Skin. **Fuchs E**. Cell Stem Cell **4**:499-502 (2009).
6. The tortoise and the hair: slow-cycling cells in the stem cell race. **Fuchs E**. Cell. **137**:811-819 (2009).
7. *Polycomb protein Ezh2 balances proliferation and differentiation in developing epidermal stem cells. Ezkhova E, Pasolli HA, Stokes N, Su I, Tarakhovsky A, **Fuchs E**. Cell **136**:1122-1135 (2009).
8. Cyfip1 is a putative invasion suppressor in epithelial cancers. Silva JM, Ezkhova E, Silva J, Heart S, Castillo M, Campos Y, Castro V, Bonilla F, Cordon-Cardo C, Muthuswamy SK, Powers S, **Fuchs E** and Hannon GJ, Cell, **137**: 1047-1061(2009).
9. A two step mechanism for stem cell activation during hair regeneration. Greco V, Chen T, Rendl M, Schober M, Pasolli HA, Stoke N, dela Cruz-Racelis J, **Fuchs E**. Cell Stem Cell, **4**:155-169 (2009)
10. Epidermal homeostasis: a balancing act of stem cells in the skin. Blanpain C, Fuchs E. Nat Rev Mol Cell Biol. **10**:207-17 (2009).
11. DGCR8-dependent microRNA biogenesis is essential for skin development. Yi R, Pasolli HA, Landthaler M, Hafner M, Ojo T, Sheridan R, Sander C, O'Carroll D, Stoffel M, Tuschl T, **Fuchs E**. Proc Natl Acad Sci U S A. **106**:498-502 (2009).
12. Isolation and culture of epithelial stem cells. Nowak JA, **Fuchs E**. Methods Mol Biol. **482**:215-232 (2009).
13. *ACF7 regulates cytoskeletal-focal adhesion dynamics and migration and has intrinsic ATPase activity. Wu X, Kodama A, **Fuchs E**. Cell **135**:137-148 (2008).
14. *Planar polarization in embryonic epidermis orchestrates global asymmetric morphogenesis of hair follicles. Devenport D, **Fuchs E**. Nature Cell Biology. **10**:1257-1268 (2008).
15. AP-2 factors act in concert with Notch to orchestrate terminal differentiation in skin epidermis. Wang X, Pasolli HA, Williams T and **Fuchs E**. J Cell Biology **183**:37-48 (2008).
16. Loss of p120-catenin and links to mitotic alterations, inflammation and skin cancer. Perez-Moreno M, Pasolli HA, **Fuchs E**. Proc. Natl. Acad Sci. USA **105**:15399-15404 (2008).
17. New insights into cadherin function in epidermal sheet formation and maintenance of tissue integrity. Tinkle C, Pasolli HA, **Fuchs E**. Proc. Natl. Acad Sci. USA **105**:15405-15410(2008).
18. *Hair follicle stem cells are specified and function in early skin morphogenesis. Nowak JA, Polak L, Pasolli HA, **Fuchs E**. Cell Stem Cell **3**, 33-43 (2008).

19. Signaling function of α -catenin in microtubule regulation. Shtutman M, Chausovsky A, Prager-Khoutorsky M, Schiefermeier N, Boguslavsky S, Kam Z, **Fuchs E**, Geiger B, Borisy GG, Bershadsky AD. Cell Cycle **15**:2377-2383 (2008).
20. Building epithelial tissues from skin stem cells. **Fuchs E** and Nowak J. Cold Spr. Harbor Symp. On Quantitative Biology **73**, 333-350 (2008).
21. More than one way to skin. **Fuchs E** and Horsley V. Genes Dev **22**, 976-85 (2008)
22. *A skin microRNA promotes differentiation by repressing stemness. Yi R and **Fuchs E**, Nature **454**, 225-229 (2008).
23. *NFTAc1 balances quiescence and proliferation of skin stem cells. Horsley V., Aliprantis AO, Polak L., Glimcher LH, and **Fuchs, E**. Cell, **132**: 299-310 (2008).
24. Bone morphogenetic protein signaling is required for hair induction by hair follicle stem cell niche cells, Rendl M, Polak L and **Fuchs E**. Genes Dev **22**:543-557 (2008). [cover]
25. Skin stem cells: rising to the surface, Fuchs E, J Cell Biol. **180**:273-284. (2008).
26. *Loss of TGF β signaling destabilizes homeostasis and promotes squamous cell carcinomas in stratified epithelia. Guasch G, Schober M, Pasolli HA, Conn EB, Polak L and **Fuchs E**. Cancer Cell, **12**:313-327 (2007).
27. p63: revving up stem-cell potential. Blanpain C, **Fuchs E**. Nat. Cell Biol. **9**: 731-733 (2007).
28. Loss of a quiescent niche but not follicle stem cells in the absence of BMP signaling. Kobiela K, Stokes N, de la Cruz J, Polak L, **Fuchs E**. PNAS USA **104**, 10063-10068 (2007).
29. Mice cloned from skin cells. Li J, Greco V, Guasch G, **Fuchs E**, Mombaerts P. PNAS USA **104**, 2738-44 (2007).
30. Scratching the surface of skin development. **Fuchs E**. Nature **445**, 834-842 (2007).
31. Turning over new leaves: epithelial stem cells. Blanpain C, Horsley V and **Fuchs E**. Cell **128**, 445-458 (2007).
32. Desmoplakin: An unexpected regulator of microtubule organization in the epidermis. Lechler T and **Fuchs E**. J Cell Biol **176**, 147-154 (2007).
33. Focal adhesion kinase modulates tension signaling to control actin and focal adhesion dynamics. Schober M, Raghavan S, Nikolova M, Polak L, Pasolli HA, Beggs HE, Reichardt LF & **Fuchs E**. J Cell Biol. **176**, 667-680 (2007).
34. Catenins: Keeping cells from getting their signals crossed. Perez-Moreno M and **Fuchs E**. Dev Cell **11**, 601-612 (2006).
35. Canonical Notch signaling functions as a commitment switch in the epidermal lineage, Blanpain C, Lowry WE, Pasolli HA, **Fuchs E**. Genes Dev **20**, 3022-3035 (2006).
36. *Tcf3 governs stem cell features and represses cell fate determination in skin. Nguyen H, Rendl M, **Fuchs E**. Cell **127**, 171-183 (2006).
37. Epidermal stem cells of the skin. Blanpain C, **Fuchs E**. Ann Rev Cell Dev Biol **22**, 339-373 (2006).
38. *Blimp1 defines a novel progenitor population that governs cellular input to the sebaceous gland, Horsley V, O'Carroll D, Tooze R, Ohinata Y, Saitou M, Obukhanych T, Nussenzweig M, Tarakhovsky A, **Fuchs E**. Cell **126**, 597-609 (2006).
39. *Lhx2 maintains stem cell character in hair follicles. Rhee H, Polak L, **Fuchs E**. Science **312**,1946-49 (2006).
40. *p120-catenin mediates inflammatory responses in the skin. Perez-Moreno M, Davis MA, Wong E, Pasolli HA, Reynolds AB, **Fuchs E**. Cell **124**, 631-644 (2006).
41. Protein tyrosine kinase 6 negatively regulates growth and promotes enterocyte differentiation in the small intestine, Haegebarth A, Bie W, Yang R, Crawford SE, Vasioukhin V, **Fuchs E**, Tyner AL. Mol Cell Biol **26**, 4949-4957 (2006)
42. AP-2 α : A regulator of EGF receptor signaling and proliferation in skin epidermis, Wang X, Bolotin D, Chu DH, Polak L, Williams T, **Fuchs E**. J Cell Biol **172**, 409-421 (2006).
43. Morphogenesis in skin is governed by discrete sets of differentially expressed miRNAs. Yi R, O'Carroll D, Pasolli HA, Zhang Z, Dietrich FS, Tarakhovsky A, **Fuchs E**. Nat Gen **38**, 356-363 (2006).
44. Links between α -catenin, NF κ B and squamous cell carcinoma in skin. Kobiela A, **Fuchs E**. PNAS **107**, 2322-2327 (2006).
45. β 1 Integrins are required for hippocampal AMPA receptor-dependent synaptic transmission, synaptic plasticity and working memory, Chan C-S, Weeber EJ, Zong L, **Fuchs E**, Sweatt JD & Davis RL. J Neuroscience **26**, 223-232 (2006).

46. The hair cycle. Alonso L, **Fuchs E**. J Cell Sci **119**, 391-393 (2006).
47. *Asymmetric cell divisions promote stratification and differentiation of mammalian skin, Lechler T & **Fuchs E**. Nature **437**, 275-280 (2005).
48. Molecular dissection of mesenchymal-epithelial interactions in the hair follicle, Rendl M, Lewis L & **Fuchs E**. PLoS Biology **3**, 1910-1924 (2005).
49. Sgk3 links growth factor signaling to maintenance of progenitor cells in the hair follicle, Alonso, L, Okada H, Pasolli HA, Wakeham A, You-Ten AI, Mak TW, **Fuchs E**. J Cell Biol **170**, 559-570 (2005).
50. Defining the impact of β -catenin/Tcf transactivation on epithelial stem cells Lowry WE, Blanpain C, Nowak J, Guasch G, Lewis L, **Fuchs E**. Genes Dev **19**, 1596-1611 (2005).
51. Mice in the world of stem cell biology: fact, fiction & function, Guasch G, **Fuchs E**. Nat Gen, **37**, 1201-1206. (2005).
52. A signaling pathway involving TGF-beta2 and snail in hair follicle morphogenesis. Jamora C, Lee P, Kocieniewski P, Azhar M, Hosokawa R, Chai Y, **Fuchs E**. PLoS Biol **3** 131-143 (2005).
53. Coordinating cytoskeletal tracks to polarize cell locomotion. Kodama A, **Fuchs E**. J Cell Biol **167**, 203-207 (2004).
54. *Self renewal, multipotency and the existence of two cell populations within an epithelial stem cell niche. Blanpain, C, Lowry W.E, Geoghegan A, Polak, L, **Fuchs E**. Cell **118**, 635-648 (2004).
55. Socializing with the neighbors: stem cells & their niches. **Fuchs E**, Tumber T, Guasch G. Cell **116** 769-78 (2004).
56. * Defining the epithelial stem cell niche of the skin. Tumber T, Guasch G, Greco V, Blanpain C, Lowry WE, Rendl M, Polak L, **Fuchs E**. [Science Express Dec 11, 2003] Science **303**, 359-363 (2004).
57. α -Catenin: at the junction of intercellular adhesion and actin dynamics. Kobiela A, **Fuchs E**. Nature Rev Mol Cell Biol **5**, 614-625 (2004).
58. Mammalian formin1 participates in adherens junctions & polymerization of linear actin cables. A. Kobiela, H.A. Pasolli & **E. Fuchs**. Nature Cell Biol **6**, 21-30 (2004).
59. Biogenesis and function of mouse mammary epithelium depends on the presence of functional α -catenin. Nemade RV, Bierie B, Nozawa M, Bry C, Smith GH, Vasioukhin V, **Fuchs E**, Hennighausen L. Mech Dev **121**,91-99 (2004).
60. Conditional targeting of E-cadherin in skin: insights into hyperproliferative and degenerative responses. Tinkle CL, Lechler T, Pasolli HA, **Fuchs E**. PNAS **101**, 552-557 (2004).
61. Tcf3: A transcriptional regulator of axis induction in the early embryo. Merrill BJ, Pasolli HA, Polak L, Rendl M, García-García MJ, Anderson K, **Fuchs E**. Development, **131**, 263-274 (2004).
62. In vivo differentiation potential of tracheal basal cells: evidence for multipotent & unipotent subpopulations. Hong KU, Reynolds S, Watkins S, **Fuchs E**, Stripp B. Am J Physiol **286**, 643-49 (2004).
63. Basal cells are a multipotent progenitor capable of renewing the bronchial epithelium. Hong KU, Reynolds, SD, Watkins S, **Fuchs E**, Stripp BR. Am J Pathol **164**, 577-88 (2004).
64. ACF7: an essential integrator of microtubule dynamics, Kodama A, Karakesisoglou I, Wong E, Polak L, **Fuchs E**. Cell **115**, 343-354 (2003).
65. Molecular cloning and characterization of AP-2epsilon, a fifth member of the AP-2 family. Tummala R, Romano RA, **Fuchs E**, Sinha S. Gene **321**,93-102 (2003).
66. Cell differentiation: Focus on epithelia, **Fuchs E**, Watt FM. Curr Opin Cell Biol. **15**, 738-739 (2003).
67. Defining BMP functions in the hair follicle by conditional ablation of BMP Receptor IA. K. Kobiela, HA Pasolli, L. Alonso, L. Polak & **E. Fuchs**. J Cell Biol **163**, 609-624 (2003).
68. BPAG1n4 is essential for retrograde axonal transport in sensory neurons. Liu JJ, Ding J, Kowal AS, Nardine T, Allen E, Delcroix JD, Wu C, Mobley W, **Fuchs E**, Yang Y. J Cell Biol **163**,223-229 (2003).
69. Differential regulation of midbrain dopaminergic neuron development by Wnt-1, Wnt-3a and Wnt-5a. Castelo-Branco G, Wagner J, Rodriguez FJ, Kele J, Sousa K, Rawal N, Pasolli HA, **Fuchs E**, Kitajewski J, Arenas E. PNAS **100**,12747-12752 (2003).
70. GATA-3 An unexpected regulator of cell lineage determination in skin, Kaufman CK, Pasolli HA, Rendl M, Bolotin D, Lim K-C, Dai X, Alegre M-L, **Fuchs E**. Genes Dev **17**, 2108-2122 (2003).
71. A role for β 1 integrins in focal adhesion regulation and polarized cytoskeletal dynamics, Raghavan S, Vaezi A, **Fuchs E**. Dev Cell **5**, 415-427 (2003).
72. Loss of kindlin-1, a human homolog of the *C. elegans* actin-extracellular matrix linker protein UNC-112, causes Kindler syndrome DH Siegel, GHS Ashton, HG Penagos, JV Lee, HS Feiler, KC Wilhelmsen, AP South, FJ Smith, AR Prescott, V Wessagowit, N Oyama, M Akiyama, D Al Aboud, K Al Aboud, A Al Githami,

- K Al Hawsawi, A Al Ismaily, R Al-Suwaid, DJ Atherton, R Caputo, JD Fine, IJ Frieden, **Fuchs E**, RM Haber, T Harada, Y Kitajima, SB Mallory, H Ogawa, S Sahin, H Shimizu, Y Suga, G Tadini, K Tsuchiya, CB Wiebe, F Wojnarowska, AB Zaghoul, T Hamada, R Mallipeddi, RAJ Eady, WHI McLean, JA McGrath, & EH Epstein, Jr. Amer J Human Genetics, **73**,174-187 (2003).
73. Links between signal transduction, transcription and adhesion in epithelial bud development, Jamora C, DasGupta R, Kocieniewski P, **Fuchs E**. Nature **422**, 317-322 (2003)
 74. Stem cells in the skin: waste not want not. Alonso L & **Fuchs E**. Genes Dev **17**,1189-1200 (2003)
 75. Cancer: more than skin deep, Bolotin D, **Fuchs E**. Nature, **421**, 594-595. (2003).
 76. Sticky business: orchestrating cellular signals at adherens junctions, Perez-Moreno M, Jamora C, **Fuchs E**. Cell **112**, 535-548 (2003).
 77. Stem cells of the skin. Alonso L, **Fuchs E**. PNAS **100**,11830-11835 (2003).
 78. Expression of conditional Cre recombinase in epithelial tissues of transgenic mice. Wen F, Cecena G, Munoz-Ritchie V, **Fuchs E**, Chambon P, Oshima RG. Genesis **35**,100-106 (2003).
 79. Targeted disruption of the murine zyxin gene. Hoffman L, Nix D, Benson B, Boot-Hanford R, Gustafsson E, Jamora C, Menzies AS, Goh L, Jensen CC, Gertler F, **Fuchs E**, Fassler R, Beckerle, MC. Mol Cell Biol **23**, 70-79 (2003).
 80. Protection of the intestinal mucosa by intraepithelial $\gamma\delta$ T cells. Chen Y, Chou K, **Fuchs E**, Havran WL, & Boismenu R PNAS **99**, 14338-14343 (2002).
 81. Actin cable dynamics and Rho/Rock orchestrate a polarized cytoskeletal architecture in the early steps of assembling a stratified epithelium. Vaezi A, Bauer C, Vasioukhin V, **Fuchs E**. Dev Cell **3**, 367-81 (2002)
 82. A developmental conundrum: a stabilized form of β -catenin lacking the transcriptional activation domain triggers features of hair cell fate in epidermal cells and epidermal cell fate in hair follicle cells. DasGupta R, Rhee H, **Fuchs E**. J Cell Biol **158**, 331-344 (2002)
 83. Dissection of a complex enhancer element: maintenance of keratinocyte specificity but loss of differentiation specificity. Kaufman CK, Sinha S, Bolotin D, Fan J, **Fuchs E**. Mol Cell Biol **22**, 4293-308 (2002).
 84. A role for skin $\gamma\delta$ T cells in wound repair. Jameson J, Ugarte K, Chen N, Yachi P, **Fuchs E**, Boismenu R, Havran WL Science **296**, 747-749 (2002).
 85. Fibroblast growth factor-10 is a mitogen for urothelial cells. Bagai, S, Rubio E, Cheng JF, Sweet R, Thomas R, **Fuchs E**, Grady R, Mitchell M, Bassuk JA. J Biol Chem **277**, 23828-23837 (2002).
 86. The Lef/ β -catenin complex activates *movo1*, a mouse homolog of Drosophila *ovo* required for epidermal appendage differentiation. Li B, Mackay DR, Dai Q, Li TW, Nair M, Fallahi M, Schonbaum CP, Fantès J, Mahowald AP, Waterman ML, **Fuchs E**, Dai X. PNAS **99**, 6064-6069 (2002).
 87. Intercellular adhesion and signaling, Jamora C, **Fuchs E** Nature Cell Biol **4**, 101-108 (2002).
 88. Getting under the skin of epidermal morphogenesis, Raghavan S, **Fuchs E**. Nat Gen Rev **3**, 199-210 (2002).
 89. Structure and transcription of the human m3 muscarinic receptor gene. Forsythe SM, Kogut PC, McConville JF, Fu Y, McCauley JA, Halayko AJ, Liu HW, Kao A, Fernandes DJ, Bellam S, **Fuchs E**, Sinha S, Bell GI, Camoretti-Mercado B, Solway J. Am J Resp Cell Mol Biol **26**, 269-72 (2002).
 90. Desmoplakin plays an essential role in epidermal sheet formation, Vasioukhin V, Bowers E, Bauer C, Degenstein L, **Fuchs E**. Nature Cell Biol **3**, 1076-1085 (2001).
 91. At the roots of a never-ending cycle. **Fuchs E**, Merrill B, DasGupta R. Dev Cell **1**,13-26 (2001).
 92. Tcf3 and Lef1 regulate lineage differentiation of multipotent stem cells in skin. Merrill BJ, Gat U, DasGupta R, **Fuchs E**. Genes Dev **15**, 1688-1705 (2001).
 93. *Hyperproliferation and defects in epithelial polarity upon conditional ablation of α -catenin in skin, Vasioukhin V, Bauer C, Degenstein L, Wise B, **Fuchs E**. Cell **104**,605-617 (2001).
 94. Identification and dissection of an enhancer controlling epithelial gene expression in skin, Sinha S & **Fuchs E**. PNAS **98**, 2455-2460 (2001).
 95. Bridging cytoskeletal intersections, **Fuchs E** & Karakesisoglou I, Genes Dev **15**, 1-14 (2001).
 96. Rescuing desmoplakin function in extraembryonic ectoderm reveals an importance for DP in embryonic heart, neuroepithelium, skin & vasculature, Gallicano GI, **Fuchs E**. Development **128**, 929-941(2001).
 97. Actin dynamics & cell-cell adhesion in epithelia. Vasioukhin V, **Fuchs E**. Curr Op Cell Biol **13**, 76-84 (2000).
 98. Conditional ablation of β 1 integrin in skin: severe defects in epidermal proliferation, basement membrane formation & hair follicle invagination. Raghavan S, Bauer C, Mundschau G, Li Q, **Fuchs E**. J Cell Biol **150**,1149-1160 (2000).
 99. It's got you covered: Nf κ B in the epidermis, Kaufmann C & **Fuchs E**. J Cell Biol **149**, 999-1004 (2000).

100. An epidermal plakin that integrates actin and microtubule networks at cellular junctions, Karakesisoglou I, Yang Y, **Fuchs E**. J Cell Biol **149**,195-208 (2000).
101. Defining the regulatory factors required for epidermal gene expression, Sinha S, Degenstein L, Copenhaver C, **Fuchs E**. Mol Cell Biol **20**, 2543-2555 (2000).
102. Directed actin polymerization is the driving force for epithelial cell-cell adhesion, Vasioukhin V, Bauer C, Yin M, **Fuchs E**. Cell **100**, 209-219, 2000.
103. Dose-dependent linkage, assembly inhibition and disassembly of vimentin and cytokeratin 5/14 filaments through plectin's intermediate filament-binding domain, Ferdinand A. Steinbock, Branislav Nikolic, Coulombe PA, **Fuchs E**, Traub P & Wiche G, J Cell Sci **113**, 483-491, 2000.
104. Stem Cells: A new lease on life, **Fuchs E** & Segre JA, Cell **100**, 111-120, 2000.
105. Physiological control of smooth muscle-specific gene expression through regulated nuclear translocation of serum response factor. Camoretti-Mercado B, Liu HW, Halayko AJ, Forsythe SM, Kyle JW, Li B, Fu Y, McConville J, Kogut P, Vieira JE, Patel NM, Hershenson MB, **Fuchs E**, Sinha S, Miano JM, Parmacek MS, Burkhardt JK, Solway J. J Biol Chem **275**, 30387-30393 (2000)
106. *Distinct roles for activated Lef/tcf transcription complexes during key steps in hair follicle development and differentiation. DasGupta R, **Fuchs E**. Development, **126**, 4557-4568 (1999).
107. Crossroads on cytoskeletal highways. Yang Y, **Fuchs E**. Cell, **98**, 547-550 (1999).
108. Integrators of the Cytoskeleton that Stabilize Microtubules. Yang Y, Bauer C, Strasser G, Wollman R, Julien JP, **Fuchs E**. Cell **98**, 229-238 (1999).
109. KLF4: a transcription factor required for establishing the skin's barrier functions. Segre JA, Bauer C, **Fuchs E**. Nature Genetics **22**, 356-350 (1999).
110. Manipulation of outer root sheath cell survival perturbs the hair growth cycle, Pena JC, Kelekar A, **Fuchs E**, Thompson CB. EMBO J **18**, 3596-3603 (1999)
111. *The magical touch: genome targeting in epidermal stem cells induced by tamoxifen application to mouse skin, Vasioukhin V, Wise B, Degenstein L, **Fuchs E**. PNAS **96**, 8551-56, (1999).
112. A common human skin tumor is caused by activating mutations in beta-catenin, Chan EF, Gat U, McNiff J, **Fuchs E**. Nature Genetics **21**, 410-413, 1999.
113. FGF-7 modulates ureteric bud growth and nephron number in the developing kidney, J. Qiao, R. Uzzo, T. Obara-Ishihara, L. Degenstein, **E. Fuchs** & D. Herzlinger. Development **126**, 547-554 (1999).
114. Myelin formation by schwann cells in the absence of β 4-integrin, Frei R, Dowling J, Carenini S, **Fuchs E**, Martini R. Glia, **27**, 269-274 (1999)
115. Desmoplakin is required in development for assembly of desmosomes & cytoskeletal linkage. Gallicano GI, Kouklis P, Bauer C, Yin M, Vasioukhin V, Degenstein L, **Fuchs E**. J Cell Biol **143**, 2009-22 (1998).
116. *De novo hair follicle morphogenesis and hair tumors in mice expressing a truncated β -catenin in skin. Gat U, DasGupta R, Degenstein L, **Fuchs E**. Cell, **95**, 605-614 (1998).
117. The Ovo gene required for cuticle formation & oogenesis in flies is involved in hair formation & spermatogenesis in mice. Dai X, SchonbaumC, Degenstein L, Bai W, Mahowald A, **Fuchs E**. Genes Dev **12**, 3442-3451 (1998).
118. Functional differences between keratins of stratified and simple epithelia, Hutton ME, Palidini RD, Yu QC, Yen M, Coulombe PA, **Fuchs E**. J Cell Biol **143**, 487-499 (1998).
119. *A dysfunctional desmin mutation in a patient with severe generalized myopathy, Munoz-Marmol AM, Strasser G, Isamat M, Coulombe PA, Yang YY, Roca X, Vela E, Mate JL, Coll J, Fernandez-Figueras MT, Navas-Palacios JJ, Ariza A, **Fuchs E**. PNAS **95**, 11312-11317 (1998)
120. *Intermediate filaments in morphogenesis & disease. Cleveland DW, **Fuchs E**. Science **279**, 514-19 (1998).
121. Defining desmoplakin's interactions with desmosomes. Smith E, **Fuchs E**. J Cell Biol **141**,1229-41 (1998).
122. Integrators of epidermal growth and differentiation: Distinct functions for β 1 and β 4 integrins. **Fuchs E**, Dowling J, Julia Segre, Lo SH & Yu QC. Curr Op Gen Dev **7**, 672-682 (1997).
123. An unexpected localization of basoenuclin in the centrosome, mitochondria and acrosome of developing spermatids. Yang ZH, Gallicano GI, Yu QC, **Fuchs E**. J Cell Biol **137**, 657-669 (1997).
124. Expression of BPAG1-n: insights into the spastic ataxia and gross neurologic degeneration in *Dystonia Musculorum* Mice. Dowling J, Yang Y, Wollman R, Reichardt L, **Fuchs E**. Dev Biol**187**,131-142 (1997).
125. Bcl-x expression influences keratinocyte cell survival but not terminal differentiation. Pena JC, **Fuchs E**, Thompson C. Cell Growth & Differentiation.**8**, 619-629 (1997).
126. Of mice and men: Genetic disorders of the cytoskeleton, **Fuchs E**. Mol Biol Cell, **8**, 189-203 (1997).

127. Progressive kidney degeneration in mice lacking tensin, Lo SH, Yu QC, Degenstein L, Chen LB, **Fuchs E**. J Cell Biol **136**,1349-1361 (1997).
128. Transgenic studies with a keratin-promoter driven growth hormone transgene: prospects for gene therapy. Wang X, Zinkel S, Polonsky K, **Fuchs E**. PNAS **94**, 219-226 (1997).
129. *An essential cytoskeletal linker protein connecting actin microfilaments to intermediate filaments, Yang Y, Dowling J, Yu QC, Kouklis P, Cleveland DW, **Fuchs E**. Cell **86**, 655-665 (1996).
130. Cell differentiation. **Fuchs E**, Olson E. Curr Opin Cell Biol **8**, 823-825 (1996).
131. Genetic disorders of keratins & their associated proteins, **Fuchs E**. J Derm Science **13**,181-192 (1996).
132. *The genetic basis of Epidermolysis Bullosa Simplex with Mottled Pigmentation. Uttam J, Hutton ME, Coulombe PA, Anton-Lamprecht I, Yu QC, Gedde-Dahl T, Fine JD, **Fuchs E**. PNAS **93** 9079-84 (1996)
133. β 4 integrin is required for hemidesmosome formation, cell adhesion and cell survival, Dowling J, Yu QC, **Fuchs E**. J. Cell Biol **134**, 559-572 (1996).
134. CD28//B7 regulation of Th1 and Th2 subsets in the development of autoimmune diabetes. Lenschow DJ, Herold KC, Rhee L, Patel B, Koons A, Qin HY, **Fuchs E**, Singh B, Thompson CB, Bluestone JA. Immunity **5**, 285-293 (1996)
135. Mice expressing a mutant desmosomal cadherin exhibit abnormalities in desmosomes, proliferation and epidermal differentiation, Allen E, Yu QC, **Fuchs E**. J Cell Biol **133**, 1367-1382 (1996).
136. Intermediate filaments and genetic diseases, **Fuchs E**. Ann. Rev. Genetics, **30**,197-231, 1996.
137. Keratins: Mechanical integrators in epidermis/hair & their role in disease. **Fuchs E**. Prog Derm **30** 1-12 (1996).
138. Ablation of keratinocyte growth factor in mice: Skin changes but no aberrancies in wound-healing, Guo L, Degenstein L, **Fuchs E**. Genes Dev **10**, 165-175(1996).
139. Genetic analysis of a severe case of Dowling-Meara Epidermolysis Bullosa Simplex. Chan YM, Cheng J, Gedde-Dahl Jr. T, Niemi KM, **Fuchs E**. J Invest Dermatol **106**, 327-334 (1996).
140. Keratins and the skin. **Fuchs E**. Ann Rev Cell Dev Biol **11**, 93-122 (1995).
141. *Gene targeting of BPAG1: Abnormalities in mechanical strength and cell migration in stratified squamous epithelia and severe neurologic degeneration--the dystonia musculorum mouse. Guo L, Degenstein L, Dowling J, Yu QC, Wollman R, Perman B, **Fuchs E**. Cell **81**, 233-244 (1995).
142. Keratin 14 knockout mice: insights into the function and regulation of the IF network in stratified squamous epithelia. Lloyd C, Yu QC, Cheng J, Turksen K, Degenstein L, Hutton ME, **Fuchs E**. J. Cell Biol **129**, 1329-1344 (1995).
143. Immature skin development in transgenic mice with targeted expression of a dominant-negative RA receptor, Saitou M, Sugai S, Tanaka T, Shimouchi K, **Fuchs E**, Narumiya S, Kakizuka A. Nature **374**, 159-162 (1995)
144. Lymphoid enhancer factor (LEF-1) plays a major role in hair follicle morphogenesis and gene expression. Zhou P, Jacobs J, Byrne C, **Fuchs E**. Genes Dev **9**, 700-713 (1995).
145. *Genetic and clinical mosaicism in a type of Epidermal Nevus, Paller AS, Syder AJ, Chan YM, Yu QC, Hutton ME, Hadini G, **Fuchs E**. New England Journal of Medicine **331**, 1408-1415 (1994).
146. The A/B domain of truncated RARs can block differentiation and promote features of malignancy, Aneskievich B, **Fuchs E**. J Cell Sci **108**,195-205 (1995).
147. The importance of intramolecular ion pairing in IFs, Letai A, **Fuchs E**. PNAS **92**, 92-96 (1995).
148. Making a connection: interactions between intermediate filament proteins and desmosomes, Kouklis P, Hutton ME, **Fuchs E**. J Cell Biol **127**, 1049-1060 (1994).
149. Genetic basis of Epidermolysis Bullosa Simplex & Epidermolytic Hyperkeratosis. **Fuchs E**, Coulombe P, Cheng J, Chan YM, Hutton ME, Syder A, Degenstein L, Vassar R. J Inv Derm **103** 25-30 (1994).
150. A human keratin 14 knockout: The absence of K14 leads to severe Epidermolysis Bullosa Simplex and a function for an IF protein, Chan, YM, Anton-Lamprecht I, Yu QC, Jaeckel A, Zabel B, Ernst JP, **Fuchs E**. Genes Dev **8**, 2574- 2587 (1994).
151. The epidermis: rising to the surface, **Fuchs E**, Byrne C. Curr Opin Gen Devel, **4**, 725-736 (1994).
152. Cracks in the foundation: Keratin filaments and genetic disease. **Fuchs E**, Yiu-mo Chan, Amy S. Paller, Yu QC, Trends Cell Biol **4**, 321-326 (1994).
153. Programming gene expression in developing epidermis. Byrne C, Michael Tainsky, **Fuchs E**. Development **120**, 2369-2383 (1994).
154. IFs and disease: Mutations that cripple cell strength, **Fuchs E** J Cell Biol **125**, 511-516 (1994).
155. Intermediate Filaments, **Fuchs E**, Weber K. Ann Rev Biochem **63**, 345- 382 (1994).

156. Oct-6: A regulator of keratinocyte gene expression in stratified squamous epithelia, Faus I, Huey-Juang Hsu, **Fuchs E.** *Mol Cell Biol* **14**, 3263-3275 (1994).
157. Genetic mutations in the K1 and K10 genes of patients with Epidermolytic Hyperkeratosis: Correlation between location and disease severity, Andrew J. Syder, Yu QC, Amy S.Paller, George Giudice, Roger Pearson, **Fuchs E.** *J. Clin Invest* **93**, 1533-1542 (1994).
158. Mutations in the non-helical linker segment L1-2 of keratin 5 in patients with Weber-Cockayne Epidermolysis Bullosa Simplex, Yiu-mo Chan, Yu QC, Angela Christiano, Jouni Uitto, Raju S. Kucherlapati, Janine LeBlanc-Strasecki, **Fuchs E.** *J. Cell Sci* **107**, 765-774 (1994).
159. Overexpression of parathyroid hormone-related protein in skin interferes with hair follicle development, Wysolmerski JJ, Broadus AE, Zhou J, **E. Fuchs**, Milstone LM, Philbrick WM, *PNAS* **91**, 1133-37 (1994).
160. Skin cancer and transgenic mice, Zinkel S, **Fuchs E.** *Sem Cancer Biology* **5**, 77-90 (1994).
161. Prevention of runting and cachexia by a chimeric TNF receptor-Fc protein, Michael N. Teng, Turksen K, Cindy A. Jacobs, **Fuchs E**, Hans Schreiber. *Clin Immunol Immunopathol* **69**, 215-222 (1993).
162. *The genetic basis of Weber-Cockayne Epidermolysis Bullosa Simplex, Chan YM, Yu QC, Fine JD, **Fuchs E.** *PNAS* **90**, 7414-18 (1993).
163. Epidermolysis Bullosa Simplex, Coulombe P, **Fuchs E.** *Sem Dermatology* **12**, 173-190 (1994).
164. Disease severity correlates with position of keratin point mutations in patients with EBS. Letai A, Coulombe PA, McCormick MB, Yu QC, Hutton ME, **Fuchs E.** *PNAS* **90**, 3197-3201 (1993).
165. The carboxy terminal domain of vimentin: a tale in intrafilament interactions and IF network formation, McCormick MB, Syder A, **Fuchs E.** *J Cell Biol* **122**, 395-407 (1993).
166. Epidermal differentiation and keratin gene expression, **Fuchs E.** *J Cell Sci* **17**, 197-208, 1993
167. Probing keratinocyte and differentiation specificity of the human K5 promoter in vitro and in transgenic mice, Byrne C, **Fuchs E.** *Mol Cell Biol* **13**, 3176-3190, 1993.
168. Targeting expression of keratinocyte growth factor to keratinocytes elicits striking changes in epithelial differentiation in transgenic mice, Guo L, Yu QC, **Fuchs E.** *EMBO J* **12**, 973-986 (1993).
169. Expression of plectin mutant cDNA in cultured cells indicates a role of C-terminal repeats in intermediate filament association and reveals nuclear import of the rod. Wiche G, Gromov D, Castanon MJ & **Fuchs E.** *J Cell Biol* **121**, 607-20 (1993).
170. Genetic disorders of keratin. **Fuchs E.** *J Invest Dermatol* **92**, 671-674 (1992).
171. *The genetic basis of Epidermolytic Hyperkeratosis: a disorder of differentiation-specific keratin genes. Cheng J, Syder A, Yu QC, Letai A, Paller AS, **Fuchs E.** *Cell* **69**, 811-819 (1992).
172. Transgenic overexpression of TGF α bypasses the need for Ras mutations in mouse skin tumorigenesis. Vassar R, Hutton ME, **Fuchs E.** *Mol Cell Biol* **12**, 4643-53 (1992).
173. Terminal differentiation in keratinocytes involves positive as well as negative regulation by RARs/RXRs at retinoid response elements, Aneskievich BJ, **Fuchs E.** *Mol Cell Biol* **12**, 4862-71 (1992).
174. The roles of K5 & K14 in filament assembly. Coulombe PA, **Fuchs E.** *J Cell Biol* **119**, 401-414 (1992).
175. Cachexia and graft versus host disease-type skin changes in keratin promoter-driven TNF α transgenic mice, Cheng J, Turksen K, Yu QC, Schreiber H, Teng M, **Fuchs E.** *Genes Dev* **6**, 444-56 (1992)
176. Of mice and men: Genetic skin diseases of keratin. **Fuchs E**, Coulombe PA, *Cell* **69**, 899-902 (1992).
177. Head, tail and R/KLLEGE domains in keratin filament structure. Wilson A, Coulombe PA, **Fuchs E.** *J. Cell Biol.* **119**: 401-414 (1992).
178. Transgenic mice expressing a mutant keratin 10 gene reveal the likely genetic basis for Epidermolytic Hyperkeratosis. **Fuchs E**, Esteves RA, Coulombe PA, *PNAS* **89**, 6906-10 (1992).
179. IL-6: insights into its function in skin by overexpression in transgenic mice. K. Turksen, T. Kupper, L. Degenstein, I. Williams, **E. Fuchs**, *PNAS* **89**, 5068-5072 (1992).
180. Intermediate filaments: Their structure & diversity. Albers K, **Fuchs E.** *Int Cytol Rev* **134**, 243-79 (1992).
181. Point mutations in the α -helical rod domain of intermediate filament proteins: Do the ends justify the mean? Letai A, Coulombe PA, **Fuchs E.** *J Cell Biol.* **116**, 1181-1195 (1992).
182. *Point mutations in human K14 genes of Epidermolysis Bullosa Simplex patients: genetic & functional analyses. Coulombe P, Hutton ME, Letai A, Hebert A, Paller AS, **Fuchs E.** *Cell* **66**, 1301-1311 (1991).
183. A function for keratins and a common thread among different types of Epidermolysis Bullosa Simplex diseases, Coulombe P, Hutton ME, Vassar R, **Fuchs E.** *J Cell Biol* **115**, 1661-1674, 1991.
184. Threads between useful and useless. **Fuchs E.** *Curr Biology* **1**, 284-287 (1991).
185. Transcription factor AP2 and its role in epidermal-specific gene expression. Leask A, Byrne C, **Fuchs E.** *PNAS* **88**, 7948-7952 (1991)

186. TGF α induces collagen degradation and cell migration in differentiating human epidermal raft cultures. Turksen K, Choi Y, **Fuchs E**. Mol Bio Cell **2**, 613-625 (1991).
187. Three epidermal and one simple epithelial keratin gene map to human chromosome 12. Rosenberg M, **Fuchs E**, Le Beau MM, Eddy R & Shows TB, Cell and Cytogenetics, **57**, 33-38 (1991).
188. Sorting out IF networks: Consequences of domain swapping on IF recognition and assembly. McCormick MB, Coulombe PA, **Fuchs E**. J Cell Biol **113**, 111-1124 (1991).
189. Retinoid-mediated effects on keratin gene transcription in epidermal and squamous cell carcinoma cells. Stellmach V, Leask A, **Fuchs E**. PNAS **88**, 4582-4586 (1991).
190. Transgenic mice provide new insights into the role of TGF α during epidermal development and differentiation. Vassar R, **Fuchs E**. Genes Dev **5**, 714-727 (1991).
191. *Mutant keratin expression in transgenic mice causes marked abnormalities resembling a human skin disease. Vassar R, Coulombe P, Degenstein L, Albers K, **Fuchs E**. Cell **64**, 365-380 (1991).
192. Molecular controls of epidermal growth & differentiation: TGFs. Choi Y, **Fuchs E**. Kor J Tox **7**, 209-29 (1991).
193. Deletions in epidermal keratins leading to alterations in filament organization in vivo & in intermediate filament assembly in vitro. Coulombe P, Chan YM, Albers K, **Fuchs E**. J Cell Biol **111**, 3049-64 (1990).
194. Epidermal differentiation: the bare essentials. **Fuchs E**. J. Cell Biol. **111**, 2807-2814 (1990).
195. Epidermal differentiation. **Fuchs E**. Curr Opin Cell Biol **2**, 1028-1035 (1990).
196. Vitamin A-regulation of keratinocyte differentiation. Giudice G, **Fuchs E**. Meth Enz **190**, 18-29 (1990).
197. Identification of sequences and proteins controlling keratinocyte-specific gene expression. Leask A, Rosenberg M, Vassar R, **Fuchs E**. Genes Dev, **4**, 1985-1998 (1990).
198. TGF- α and retinoic acid: extracellular factors controlling terminal differentiation in human epidermal cells. Choi Y, **Fuchs E**. Mol Biol Cell **1**, 791-809 (1990).
199. *Exploring the early stages of keratin filament assembly. Coulombe P, **Fuchs E**. J Cell Biol **111**, 153-69 (1990).
200. Exploring the mechanisms underlying the tissue-specific and retinoid-mediated expression of keratins. Stellmach V, **Fuchs E**. The New Biologist **1**, 305-317 (1989).
201. Expression of keratin K14 in the epidermis and hair follicle: Insights into complex programs of differentiation. Coulombe P, Kopan R, **Fuchs E**. J Cell Biol **109**, 2295-2312 (1989).
202. Unusual patterns of keratin expression in the overlying epidermis of patients with dermatofibromas: biochemical alterations in the epidermis as a consequence of dermal tumors. Stoler A, Duvic M, **Fuchs E**. J Invest Dermatol **93**, 728-738 (1989).
203. A family of type I keratin genes and the homeobox-2 gene complex are closely linked to the Rex locus on mouse chromosome 11. Nadeau JH, Berger FG, Cox DR, Crosby JL, Davisson M, Ferraro D, **Fuchs E**, Lalley A, Langley SH, Martin GR, Nichols L, Phillips SJ, Roderick TH, Roop DR, Ruddle FH, Skow LC, Compton JG, Genomics **5**, 454-462 (1989).
204. Isolation, sequence and expression of a human keratin K5 gene: Transcriptional regulation of keratins and insights into pair-wise control. Lersch R, Stellmach V, Stocks C, Giudice G, **Fuchs E**. Mol Cell Biol **9**, 3155-3168 (1989).
205. The use of retinoic acid to probe the relation between hyperproliferation-associated keratins & cell proliferation in normal & malignant epidermal cells. Kopan R, **Fuchs E**. J Cell Biol **109**, 295-307 (1989).
206. Expression of mutant keratin cDNAs in epithelial cells reveals possible mechanisms for initiation and assembly of intermediate filaments. Albers K, **Fuchs E**. J Cell Biol **108**, 1477-1493 (1989).
207. Proper tissue-specific and differentiation-specific expression of a human K14 gene in transgenic mice. Vassar R, Rosenberg M, Ross S, Tyner A, **Fuchs E**. PNAS **86**, 1563-1567 (1989).
208. *A new look into an old problem: keratins as tools to investigate determination, morphogenesis and differentiation in skin. Kopan R, **Fuchs E**. Genes Dev **3**, 1-15 (1989).
209. Isolation, sequence and differential expression of a human K7 gene in simple human epithelial cells. Glass C, **Fuchs E**. J Cell Biol **107**, 1337-1350 (1988).
210. The use of monospecific antibodies & cRNA probes reveals abnormal pathways of terminal differentiation in human epidermal diseases. Stoler A, Kopan R, Duvic M, **Fuchs E**. J Cell Biol **107**, 427-446. (1988).
211. Keratins as biochemical markers of differentiation. **Fuchs E**. Trends in Genetics. **4**, 277-281. (1988)
212. Human Papilloma Virus Type 16 alters human epithelial differentiation in vitro. McCance DJ, Kopan R, **Fuchs E**, Laimins LA. PNAS **85**, 7169-7173 (1988).
213. Terminal differentiation in cultured human epidermal cells. **Fuchs E**, Albers K, Kopan R. Adv Cell Culture.

- 6, 1-33 (1988).
214. A group of type I keratin genes on human chromosome 17: their sequence and expression. Rosenberg M, Ray Chaudhury A, Shows T, Le Beau M, **Fuchs E**. Mol Cell Biol **8**, 722-736 (1988).
 215. Sequence/expression of a type II keratin K5 in human epidermal cells. Lersch R, **Fuchs E**. Mol Cell Biol **8**, 486-493 (1988).
 216. Localization of keratin mRNAs in human tracheobronchial epithelium and bronchogenic carcinomas by in situ hybridization. Obara T, Baba M, Yamaguchi Y, **Fuchs E**, Resau JH, Trump BF & Klein-Szanto AJP. Amer J Pathol **131**, 519-529 (1988).
 217. Regulation of human mesothelial cell differentiation: opposing roles of retinoids and EGF in the expression of intermediate filament proteins. Kim KH, Stellmach V, Javors J, **Fuchs E**. J Cell Biol **105**, 3039-3051 (1987).
 218. The human keratin genes and their differential expression. **Fuchs E**, Tyner AL, Giudice GJ, Marchuk D, Ray Chaudhury A & Rosenberg M. Curr Top Dev Biol **22**, 5-34 (1987).
 219. *The expression of mutant epidermal keratin cDNAs transfected in simple epithelial and squamous cell carcinoma lines. Albers K, **Fuchs E**. J Cell Biol **105**, 791-806 (1987).
 220. An Epstein-Barr Virus transforming protein associates with vimentin in lymphocytes. Liebowitz D, Kopan R, **Fuchs E**, Sample J, Kieff E. Mol Cell Biol **7**, 2299-2308 (1987).
 221. Retinoids as regulators of terminal differentiation: examining keratin expression in individual epidermal cells at various stages of keratinization. Kopan R, Traska G, **Fuchs E**. J Cell Biol **105** 427-440 (1987).
 222. The transfection of epidermal keratin genes into fibroblasts and simple epithelial cells: Evidence for inducing a type I keratin by a type II gene. Giudice G, **Fuchs E**. Cell **48**, 453-463 (1987).
 223. Evidence for posttranscriptional regulation of the keratins expressed during hyperproliferation and malignant transformation in human epidermis. Tyner A, **Fuchs E**. J Cell Biol **103**, 1945-1956 (1986).
 224. Three tightly linked genes encoding human type I keratin genes: conservation of sequence in the 5' untranslated leader. Ray Chaudhury A, Marchuk D, Lindhurst M, **Fuchs E**, Mol Cell Biol **6** 539-48 (1986).
 225. Sequence/expression of a human type II mesothelial keratin. Glass C, Kim KH, **Fuchs E**. J Cell Biol **101** 366-2373 (1985).
 226. The sequence of a type II keratin gene expressed in human skin: conservation of structure among all IF genes. Tyner AL, Eichman MJ, **Fuchs E**. PNAS **82** 4683-4687 (1985).
 227. Complete sequence of a type I human keratin gene: presence of enhancer-like elements in the regulatory region of the gene. Marchuk D, McCrohon S, **Fuchs E**. PNAS **82**, 1609-1613 (1985).
 228. Keratin expression in normal esophageal epithelium and squamous cell carcinoma of the esophagus. Grace MP, Kim KH, True LD, **Fuchs E**. Cancer Research **45**, 841-846 (1985).
 229. *Remarkable conservation among IF genes. Marchuk D, McCrohon S, **Fuchs E**. Cell **39**, 491-98 (1984).
 230. Expression of unusually large keratins during terminal differentiation: balance of type I and type II keratins is not disrupted. Kim KH, Marchuk D, **Fuchs E**. J Cell Biol **99**, 1872-1877 (1984).
 231. Differences in keratin synthesis between normal epithelial cells and squamous cell carcinomas are mediated by Vitamin A. Kim KH, Schwartz F, **Fuchs E**. PNAS **81**, 4280-4284 (1984).
 232. Type I and type II keratins have evolved from lower eukaryotes to form the epidermal intermediate filaments in mammalian skin. **Fuchs E** & Marchuk D, PNAS **80**, 5857-5861 (1983).
 233. Unraveling the structure of the intermediate filament. **Fuchs E**, Hanukoglu I, Cell **34**, 332-334 (1983).
 234. Expression of human α -tubulin genes: surprising interspecies conservation of 3'untranslated regions. Cowan N, Dobner P, **Fuchs E** & Cleveland DW, Mol Cell Biol **3**, 1738-1745 (1983).
 235. *The cDNA sequence of a type II cytoskeletal keratin reveals constant and variable structural domains among keratins. Hanukoglu I, **Fuchs E**. Cell **33**, 915-924 (1983).
 236. Evolution/complexity of genes encoding human epidermal keratins. **Fuchs E**. J Inv Derm **81**, 141-44 (1983).
 237. Tissue-specificity of epithelial keratins: differential expression of mRNAs from two multigene families. Kim KH, Rheinwald J, **Fuchs E**. Mol Cell Biol **3**, 495-502 (1983).
 238. The cDNA sequence of a human cytoplasmic actin: interspecies-divergence in the 3' untranslated regions. Hanukoglu I, Tanese N, **Fuchs E**. J Mol Biol **163**, 673-678 (1983).
 239. Differentiated structural components of the keratinocyte. Green H, **Fuchs E**, Watt F. CSHS **46**, 297-309 (1982).
 240. *The cDNA sequence of a human epidermal keratin: Divergence of sequence but conservation of structure among intermediate filament proteins. Hanukoglu I, **Fuchs E**. Cell **31**, 243-252 (1982).

241. *Two distinct classes of epidermal keratin genes and their evolutionary significance. **Fuchs E**, Coppock S, Green H, Cleveland D, Cell **27**, 75-84 (1981).
242. Regulation of terminal differentiation of cultured human keratinocytes by Vitamin A. **Fuchs E**, Green H, Cell **25**, 617-625 (1981).
243. *Changes in keratin gene expression during terminal differentiation of the keratinocyte. **Fuchs E**, Green H, Cell **19**, 1033-1042 (1980).
244. Multiple keratins of cultured human epidermal cells are translated from different mRNA molecules. **Fuchs E**, Green H. Cell **17**, 573-582 (1979).
245. *The expression of keratin genes in epidermis and cultured epidermal cells. **Fuchs E**, Green H, Cell **15**, 887-897 (1978)
246. The use of hydrofluoric acid in the extraction of the hydrophilic portions of lipid intermediates from the cell wall of Bacillus megaterium. **Fuchs E**, Gilvarg C, Anal. Biochem. **90**, 465 (1978).
247. An oligomeric intermediate in peptidoglycan biosynthesis in Bacillus megaterium. **Fuchs E**, Gilvarg C, Proc. Natl. Acad. Sci. USA. **73**, 4200-4205 (1976).
248. Selective degradation of peptidoglycan from Bacillus megaterium spores during germination. **Fuchs E** & Gilvarg C, Spores VI (P. Gerhardt et al., eds.), Am. Soc. for Microbiology. pp. 458-465 (1975).

II. Book Chapters

1. Epithelial skin stem cells. In Essentials of Stem Cell Biology. Tumber T. & **Fuchs E**. (R. Lanza, J. Gearhardt, B. Hogan, D. Melton, R. Pedersen, E.D. Thomas, J. Thompson and M. West, Eds, Academic Press), pp. 169-176 (2006).
2. Epithelial skin stem cells. Tumber T & **Fuchs E**. Handbook of Adult & Fetal Stem Cells. (R. Lanza, H. Blau, D. Melton, M. Moore, E.D. Thomas, C. Verfaillie, I. Weissman, M. West, eds., Elsevier Press), pp. 257-67 (2004).
3. Beauty is skin deep: The fascinating biology of the epidermis and its appendages, **Fuchs E**. The Harvey Lecture Series. Wiley-Liss, Inc. Series **94**, pp 47-78 (2000).
4. BPAG1 Dowling J, **Fuchs E**. In Guidebook to the Cytoskeletal and Motor Proteins Oxford University Press (T. Kreiss & R. Vale, eds.), Section 3B, pp 329-333 (1999).
5. Human disorders of intermediate filament genes, E. **Fuchs**, in The Metabolic Basis of Inherited Disease, C.R. Scriver, A.L. Beaudet, W.S. Sly, & D. Valle, Eds. (McGraw-Hill, Inc.), 8th edition, Chp 222 (1999).
6. Beauty is skin deep: Biology and genetics of the epidermis, **Fuchs E**. In Epithelial Morphogenesis in Development and Disease. Harwood Acad Pub (W. & C. Birchmeier, eds.), Chpt **16**, 353-80 (1999).
7. The molecular genetics of blistering skin diseases. **Fuchs E**. in Dermatology at the Millennium, edited by D. Dyll-Smith & R. Marks (Parthenon Publ., London), 1999.
8. Molecular biology of Epidermolysis Bullosa Simplex, **Fuchs E**. In Epidermolysis Bullosa, Jo-David Fine, ed., Johns Hopkins University Press. (1999)
9. Epidermolysis Bullosa Simplex: The biology and genetics of a blistering skin disorder, Yiu-mo Chan, **Fuchs E**. In Principles of Molecular Medicine, Humana Press (Totowa, NJ), L. Jamieson, ed. Chapter **73**, pp. 699-706 (1998).
10. Transduction, M Klymkowsky, P Cowin, eds., Landes Bioscience Publ., Chapter **13**, pp 167-179, 1997.
11. Intermediate filament linker proteins. **Fuchs E**. Yang Y, Dowling J, Kouklis P, Smith E, Guo L & Yu QC. Cytoskeletal Regulation of Membrane Function, Rockefeller U. Press (S.C. Froehner & V. Bennett, eds) pp 141-148 (1997).
12. Epidermal keratinocytes: Opportunities and applications in somatic cell gene therapy, In Somatic Gene Therapy. Aneskievich B, Letai A, **Fuchs E**. CRC Press, Chapter **6**, pp 73-90 (1995).
13. Molecular mechanisms of keratin gene disorders and other inherited bullous diseases of the skin. In Molecular Mechanisms of Epithelial Cell Junctions: From Development to Disease. Pierre A. Coulombe, **Fuchs E**. S. Citi, Editor. Academic Press, **407**, 259-285, 1994.
14. Skin disorders of keratin, E. **Fuchs**, in The Metabolic Basis of Inherited Disease, C.R. Scriver, A.L. Beaudet, W.S. Sly, & D. Valle, Eds. (McGraw-Hill, Inc.), 7th edition, Chapter **149**, pp 4421-4437 (1994).
15. Of mice and men: genetic skin diseases arising from defects in keratin filaments. **Fuchs E**. In Cell and Molecular Biology, S. L. Wolfe, editor (Wadsworth Publ Co., Belmont, CA), Chpt 13: 498-500. (1993).
16. Keratin genes, epidermal differentiation and animal models for the study of human skin diseases, **Fuchs E**. Biochemical Society Transactions **19**, 1112-1115 (1991)

17. The differential expression of keratin genes in human epidermal cells. **Fuchs E**, Stoler A, Kopan R & Rosenberg M. In The Biology of Wool and Hair, G.E. Rogers, P.J. Reis, K.A. Ward, & R.C. Marshall, eds.(Chapman & Hall, N.Y.), pp. 287-310 (1989).
18. Cancer and the cytoskeleton. **Fuchs E**. Cancer-The Outlaw Cell, R.E. LaFond, ed. (American Chemical Society, Wash. D.C.) 37-55 (1988).
19. Characterization and differential expression of two human epidermal keratin genes. Tyner A, **Fuchs E**. UCLA Symposium on Molecular Approaches to Developmental Biology **31**, 629-639 (1987).
20. Structural diversity and evolution of intermediate filament proteins. Hanukoglu I, **Fuchs E**. Evolutionary Processes and Theory. S. Karlin & E. Nevo, eds., (Academic Press), 69-98, (1986).
21. Differential expression of the genes encoding the keratins of cultured human epidermal cells. **Fuchs E**, Marchuk D, & Tyner A in Cellular and Molecular Biology of the Cytoskeleton, Jerry W. Shay, ed. (Plenum Publishing Co., New York), pp. 85-107 (1986).
22. The genes encoding the keratins of human epidermis. **Fuchs E**, Marchuk D, Tyner A, Ray Chaudhury A & Lindhurst M, ICN-UCLA Symp on Transcriptional and Translational Control. **30**, 487-497 (1986).
23. Conservation of structure in intermediate filament proteins and their genes. **Fuchs E**, Marchuk D, Tyner A, Ray Chaudhury A, Lindhurst M, McCrohon S, & Eichman M. Sequence Specificity in Transcription and Translation, Alan R. Liss, Inc. pp. 487-497 (1985).
24. The nature and significance of differential keratin gene expression. **Fuchs E**, Hanukoglu I, Marchuk D, Kim KH, Grace M, Tyner A & McCrohon S, Annals of the N.Y. Academy of Sciences, Symposium on Intermediate Filaments, **455**, 436-450 (1985).
25. Epidermal α -keratins: structural diversity and changes during tissue differentiation. **Fuchs E** & Hanukoglu I, Biology of the Integument. G Matoltsy, ed. (Springer-Verlag, NY), Chp **32**, 644-65 (1985).
26. Differential keratin gene expression leads to changes in keratin sequence that influence the properties of the resulting 8 nm filaments. **Fuchs E**, Marchuk D, Kim KH, Hanukoglu I & Tyner A, Cold Spring Harbor Symposium on the Molecular Biology of the Cytoskeleton, pp. 381-393 (1984).
27. Differential expression of two classes of keratins in normal and malignant epithelial cells and their evolutionary conservation. **Fuchs E**, Grace MP, Kim KH & Marchuk D, Cold Spring Harbor Symposium on Proliferation and Cancer **1**, 161-167 (1984).
28. The evolution and complexity of the genes encoding the cytoskeletal proteins of human epidermal cells. **Fuchs E**, Kim KH, Hanukoglu I, & Tanese N, Symp. Abnormal and Normal Keratinization (Tokyo University Press), pp. 23-29 (1983).
29. Intermediate filament cytoarchitecture and BPAG1: a gene encoding two different types of IF linker proteins. **Fuchs E**, Yang Y, Dowling J, Yu QC & Guo L Cytoskeletal-Membrane Interactions and Signal

III. Theses

30. Ph.D. Thesis: The Biosynthesis and Assembly of the Peptidoglycan Sacculus of Bacillus megaterium. **Elaine Fuchs**, Completed under the supervision of Dr. Charles Gilvarg, Princeton University, 1977.
31. Senior Thesis: The Electrodiffusion of Multicharged Ions Through Quartz. **Elaine Fuchs**, Completed under the supervision of Dr. John Weil, Argonne National Laboratory, 1972.

LABORATORY:

Current Postdoctorates and present/past fellowships:

Marcus Schober, PhD Harvard Med (Jane Coffin Childs Fellow; K99 Award)
 Danelle Devenport, PhD Cambridge University England (NIH Postdoctoral Fellowship; K99 Award)
 Elena Ezhkova, PhD Cold Spring Harbor (Life Science Foundation Fellowship; K99 Award)
 Scott Williams, PhD Columbia U (NIH Training Grant, ACS Postdoctoral Fellowship)
 Xiaoyang Wu, PhD Cornell U (Ithaca NY) (AACR fellowship, Jane Coffin Childs Fellowship)
 Slobodan Beronja, PhD U Toronto (Human Frontiers Science Foundation Fellowship).
 Ting Chen, PhD U Virginia (AACR fellowship, NYSCF Fellowship)
 Haiying Zhang, PhD U Utah (ACS Postdoctoral Fellowship)
 Ellen Ezratty, PhD Columbia U (Jane Coffin Childs Postdoctoral Fellowship)
 Peter Chi, PhD, Yale U. (Starr Stem Cell Postdoctoral Fellowship)
 Chen Luxenberg, PhD, Weizmann Institute. (Starr Stem Cell Postdoctoral Fellowship)
 Ya-Chieh Hsu, PhD Baylor University (Starr Stem Cell Postdoctoral Fellowship).
 Naoki Oshimori, PhD Tokyo University (HFSP Postdoctoral Fellowship).
 Wen-hui Lien, PhD Fred Hutchison Cancer Center (Harvey L. Karp Postdoctoral Fellowship)

Catherine Lu, PhD New York University (Women in Science Postdoctoral Fellowship)
Liang Zhang, PhD University of Colorado, Boulder (HHMI)
Alicia Rodrigues-Folguerez, PhD Oviedo U, Spain
Brice Keyes, PhD U Virginia
Meelis Kadaja, PhD U Tartu, Estonia

Current Graduate Students:

Geulah Livshitz, BA Brandeis University, 2005. PhD Rockefeller University, 2006-
Evan Heller, BA Columbia University, 2007. PhD Rockefeller University, 2007-
Chiung-Ying Chang BA National Taiwan University, 2008. PhD Rockefeller University, 2008-

PAST RECORD OF TRAINING:

Previous Postdoctorates and their highest ranked position after leaving the laboratory:

Israel Hanukoglu, Ph.D. U. of Wisconsin. Was a Staff Scientist, a/Weizmann Institute, Rehovot, Israel.
Kwan-Hee Kim, Ph.D. Princeton U. Professor, Washington State U.
Charles Glass, Ph.D. Berkeley. President, Zacharon Pharmaceuticals, Inc.
Michael Grace, M.D. Georgetown Medical School. Was an Assoc. Professor, Dartmouth College.
George J Giudice, Ph.D. Princeton U. Professor, Medical College of Wisconsin.
Kathryn Albers, Ph.D. Stonybrook. Professor, U. of Pittsburgh School of Medicine.
Yohtaro Katagata, Ph.D. Tohoku U., Japan. Assoc. Professor, Tohoku U., Japan.
Youngsook Choi, Ph.D. UCSF. Professor, Dept Biology, Seoul U., South Korea.
Pierre Coulombe, Ph.D. U. of Montreal Medical School. Professor and Chair, Dept. of Biochemistry and Molecular Biology, Johns Hopkins Medical School, Baltimore, MD.
Allyson Wilson, Ph.D. U. of Illinois. Assoc. Professor, Benedictine College
Ignacio Faus, Ph.D. Indiana U. Staff scientist, Biotechnica, Barcelona, Spain.
Brian Aneskievich, Ph.D. Stonybrook. Asst. Professor, Rutgers Medical School.
Pengbo Zhou, Ph.D. U. Michigan, Assoc. Professor, Cornell Medical School, NY.
Kursad Turksen, Ph.D. U. of Toronto, Canada. Assoc. Prof., U. of Ottawa, Canada.
Jian Cheng, Ph.D. U. of California, San Diego, Pediatric Resident, Rush Medical School.
Sandra Zinkel, Ph.D. Yale U.; MD, U Chicago. Asst. Prof. Dept Medicine, Vanderbilt U.
Carolyn Byrne, Ph.D. U. of Sydney, Australia; Assoc Prof., Centre for Cutaneous Research, The London Queen Mary's School of Medicine, England.
Catriona Lloyd, Ph.D. U. of Sydney, Australia; Instructor, U. of Perth, Australia.
Su-Hao Lo, Ph.D. Harvard University Med. School; Professor, U. Cal. Davis.
Elizabeth Allen, Ph.D. University of Michigan; Res Associate, Dept Neurosciences, Stanford University.
Panos Kouklis, Ph.D. University of Heidelberg; Asst Prof, University of Illinois.
Xing Dai, Ph.D. University of Chicago; Prof, Dept Biochemistry, University of California, Irvine.
Yanmin Yang, Ph.D. University of Berlin, FDG; Assoc. Prof, Dept Neurobiology, Stanford University.
Ed Chan, M.D. Harvard Medical School; Was Asst. Prof. Dept Dermatology, University of Pennsylvania.
Ian Gallicano, Ph.D. Arizona State University; Assoc. Prof. Georgetown University.
Uri Gat, Ph.D. Weizmann Inst of Science, Rehovot, Israel; Assoc. Prof. Hebrew U at Jerusalem, Israel.
Julia Segre, Ph.D. Mass Institute of Technology; Investigator, Genome Institute, NIH.
Satrajit Sinha, Ph.D. U Texas Health Science Ctr, Houston. Asst Prof, Dept Biochemistry, SUNY Buffalo
Akis Karakesisouglou, Ph.D. University of Munich, Germany. Asst. Prof. U Cologne, Cologne, Germany
Valeri Vasioukhin, Ph.D. Leningrad U, Russia; Assoc. Prof, Dept Genetics, Fred Hutchison Cancer Center, Seattle, WA
Tudorita Tumber, PhD. U Illinois; Asst Prof, Dept Molecular Biology, U. Cornell, Ithaca, NY
Bradley Merrill, PhD, UCSD; Asst Prof, Dept Genetics & Biochemistry, U. Illinois
Colin Jamora, PhD, UCSD; Asst Prof, Dept Biology, UCSD.
Srikala Raghavan, PhD, Cambridge University, Asst Prof, Columbia University.
Atsuko Kodama, M.D., Ph.D., Osaka University, Japan. Derm Residency Program, UTSW Dallas.
Terry Lechler, Ph.D., Harvard Medical School. Asst Prof. Dept Cell Biology, Duke University.
William Lowry, PhD. Cornell University. Asst Professor, Dept Biology, UCLA.
Cedric Blanpain, M.D./PhD U Brussels, Belgium. Asst Prof. Dept Medicine, U. Brussels, Belgium.
Agnes Kobiela, Ph.D., U Medical Sciences, Poznan, Poland. Asst Prof, Cancer Bio, USC
Kris Kobiela, Ph.D., U Medical Sciences, Poznan, Poland. Asst. Prof, Pathology, USC
Michael Rendl, MD, U Vienna; Asst Professor, Stem Cell Institute, Mt Sinai Med. Sch.

Mirna Perez-Moreno, PhD. Research & Advanced Studies, Mexico City, Mexico. (DOE Fellowship), Asst Professor National Cancer Institute of Spain, Madrid
Hoang Nguyen, PhD. Sloan Kettering. (NIH Fellowship), Asst. Professor, Baylor University
Ben Short, PhD U Munich, Journal of Cell Biology Press.
Rui Yi, PhD Duke University, Asst Prof, Dept Biology, U Colorado
Geraldine Guasch, PhD. INSERM, Marseilles, France, Asst. Prof Molecular & Developmental Biology, U Cincinnati Med Sch.
Valerie Horsley, PhD, Emory University, Asst. Prof Biology, Yale University.
Michael Hack, PhD University of Munich. Novartis.
Xuan Wang, PhD Brandeis University. Pathology Residency, Weil Cornell Medical College.
Valentina Greco, PhD EMBL, Heidelberg/Dresden, Germany (Human Frontiers Fellowship), Asst. Prof. Genetics, Yale

Previous Graduate Students and their highest position achieved.

Marchuk D, B.S. U Mich.; Ph.D. 1985. Professor, Dept. Human Genetics, Duke U.
Tyner A, B.S. Indiana U; Ph.D. 1987. Professor, Dept. Human Genetics, U Illinois
Raychaudhury A, B.A. Calcutta U.; Ph.D. 1988. Res Instructor, Rush Medical School
Kopan R, M.S. Tel Aviv U.; Ph.D. 1989. Prof, Depts Medicine and Genetics, Washington U, St. Louis.
Rosenberg M, B.A. U Rochester; Ph.D. 1989. Staff scientist, National Cancer Institute.
Lersch R, B.A. U. Chicago; Ph.D. 1991. Postdoc w/ Tom Kline, Berkeley; current position unknown.
Stellmach V, B.A. Northwestern U; Ph.D. 1991. Instructor, Northwestern University Medical School.
Robert Vassar, B.A. U Chicago; Ph.D. 1992. Professor, Northwestern University Medical School.
Leask A, B.S. U British Columbia; Ph.D. 1992. Staff scientist, Fibrinogen Corp Palo Alto, CA.
Betsy McCormick, B.S. U Wisconsin; Ph.D. 1992; Was Asst. Professor, Dept. Pharmacology, University of Wisconsin.
Letai A, B.S. Princeton U.; Ph.D. 1993; M.D., 1995; Assoc. Prof, Dana Farber Cancer Center, Harvard Medical School.
Yiu-mo Chan, B.A. U Chicago; Ph.D. 1995., Asst Prof. Geisinger Hospital, PA.
Guo L, B.A. Roosevelt U.; Ph.D. 1995. MD. Yale Medical School; plastic surgeon.
Dowling J, B.A. Yale U.; Ph.D. 1999. M.D. Program, University of Chicago. Asst. Prof., U Michigan.
Smith E, Ph.D. 1999. U. Chicago MBA/Biotechnology Patenting
DasGupta R, Cambridge University, England. Postdoctoral fellow, Norbert Perrimon, Harvard University.
Charles Kaufman, Washington U (MD/PhD; UChicago), internship/residency Harvard Med School.
Alec Vaezi, MD, U Geneva, Switzerland (PhD; UChicago); residency in Surgery, U. Pittsburgh Med Sch.
Diana Bolotin, University of California, Berkeley (MD/PhD, UChicago). Residency Dermatology, U Chicago.
Horace Rhee, BA Northwestern Univ, 2000. MD/PhD Rockefeller U(PhD, 2006)/U Chicago (MD, 2008), Resident, Stanford.
Chris Tinkle, BA UT Austin, 1998. UCSF Res Tech, 1999. MD/PhD RockefellerU/Cornell Med Sch, (PhD, 2009) (MD 2010).
Jonathan Nowak, BA, U Chicago, 2001. MD/PhD, Rockefeller U/Cornell Med Sch, (PhD, 2009) (MD 2010).