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Education

- 9/81-6/85 Stanford University, Stanford, California. B.S. degree in Biological Sciences, with Honors and Departmental Distinction, June 1985 (emphasis in molecular biology and biochemistry).
9/85-6/93 University of California, San Diego, School of Medicine. La Jolla, California. Medical Scientist Training Program, M.D./Ph.D. Ph.D, Department of Biology, Molecular Genetics.
7/93-6/94 Stanford University Hospital, internship in Internal Medicine.
7/94-11/98 Stanford University Hospital, residency/fellowship in Dermatology.

Academic and Research Experience

- 11/87-6/93 Ph.D. thesis, Dr. Ronald Evans, Salk Institute, Gene Expression Lab and Howard Hughes Medical Institute. Title: Molecular and genetic analysis of two *Drosophila* nuclear receptors, knirps-related and ultraspiracle
6/96-11/98 Post-doctoral Fellowship, Dr. Matthew P. Scott, Department of Genetics and Developmental Biology, Howard Hughes Medical Institute, Stanford University school of Medicine. Genetics of vertebrate skin development
11/98-9/06 Assistant Professor, Department of Dermatology, Stanford University, School of Medicine. Genetics of vertebrate skin development
9/06-10/11 Associate Professor, Department of Dermatology, Stanford University, School of Medicine. Genetics of vertebrate skin development
10/11- Professor, Department of Dermatology, Stanford University, School of Medicine. Epithelial regeneration and carcinogenesis

Certification

California License #G079854 DEA #B04867454 Board Certification, Dermatology, 10/98, 08/07

National Advisory Committees, Boards and Service

- 1998-2000 Society for Investigative Dermatology, Board of Directors
2000-present Society for Investigative Dermatology, Committee on Kligman Travel Fellowships.
2000-present National Institutes of Health, Ad Hoc grant reviewer
2007-2010 Board of Directors, North American Hair Research Society
2010-present Nominating committee, North American Hair Research Society
2005-present Medical Advisory Board, Gorlin's Syndrome Life Support Network
2006-present National Alopecia Areata Foundation, Scientific Review Board
2007-2012 Program Committee, Society for Investigative Dermatology
2010-present Permanent Member, NIH ACTS Study Section
2010-present American Skin Association, Medical Advisory Committee
2012-present Board of Directors, Society for Investigational Dermatology
2013 Vice Chair, Gordon Research Conference Epithelial Differentiation

Scholarships and Awards

- 6/85 Elected Phi Beta Kappa, Stanford University
7/87-9/91 Elected A. Baird Hastings Honor Society, UCSD School of Medicine
5/88-5/89 Secretary, A. Baird Hastings Honor Society
9/88-9/91 Howard Hughes Medical Institute Graduate Student Award
9/85-9/93 NIH Medical Scientist Training Program
4/96 Thomas Fitzpatrick Research Award, KAO corporation.
6/97 Alvin Jacobs Research Award, Society for Pediatric Dermatology
4/98 Society for Investigative Dermatology Board of Directors, Resident/Fellow
9/99 Terman Faculty Scholarship, Stanford University, School of Medicine
7/00 Charles E. Culpeper Foundation Scholarship in Medical Science
5/06 Nature Publishing Poster Prize, Society for Investigative Dermatology
3/14 Marion Sulzberger Memorial Lecture

Patents (14)

11/1996	US Patent Application 5571696 for "RECEPTORS"
11/1996	US Patent Application 5578483 for "RECEPTORS TRANSCRIPTION-REPRESSION ACTIVITY COMPOSITIONS AND METHODS"
02/1997	US Patent Application 5602009 for "DOMINANT NEGATIVE CHIMERAS OF THE STEROID/THYROID SUPERFAMILY OF RECEPTORS"
07/1997	US Patent Application 5641652 for "INSECT RETINOID-LIKE RECEPTOR COMPOSITIONS AND METHODS"
11/1997	US Patent Application 5688691 for "INSECT RETINOID-LIKE COMPOSITIONS AND METHODS"
12/1997	US Patent Application 5696233 for "ORPHAN STEROID HORMONE RECEPTORS"
01/1998	US Patent Application 5710004 for "METHODS OF USING NOVEL STEROID HORMONE ORPHAN RECEPTORS"
07/2001	US Patent Application 6265173 for "METHODS OF MODULATING THE EXPRESSION OF GENES USING ULTRASPIRACLE RECEPTOR"
08/2001	US Patent Application 6281330 for "MULTIMERIC FORMS OF MEMBERS OF THE STEROID/THYROID HORMONE SUPERFAMILY OF RECEPTORS WITH THE ULTRASPIRACLE RECEPTOR"
11/2005	US Patent Application 20060142245 for "INHIBITORS OF HEDGEHOG SIGNALING PATHWAYS, COMPOSITIONS AND USES RELATED THERETO"
10/2006	US Patent Application 7119077 for "MULTIMERIC FORMS OF MEMBERS OF THE STEROID/THYROID SUPERFAMILY OF RECEPTORS WITH THE ULTRASPIRACLE RECEPTOR"
07/2008	US Patent Application 12/075,944 for "BONE MORPHOGENETIC PROTEIN ANTAGONIST AND USES THEREOF"
07/2008	US Patent Pending, STAN-08-77, "NOVEL HAIR CYCLE REGULATORS FOR HAIR GROWTH"
08/2009	US Patent Pending, STAN-671PRV, "NOVEL HAIR GROWTH REGULATORS"
02/2013	US Patent Pending, STAN-941, "INHIBITORS OF ATYPICAL PROTEIN KINASE C AND THEIR USE IN TREATING HEDGEHOG PATHWAY DEPENDENT CANCERS"

Memberships in Professional Associations

Society for Investigative Dermatology
American Academy of Dermatology
North American Hair Research Society
American Society for Clinical Investigation, 2008
American Dermatological Association, 2010

Bibliography

1. **Oro, A.E.** and Walbot, V. (1984). Speculations about Lack of Variation in B37N Mitochondrial DNA. *Maize Cooperative Newsletter* 58, 187.
2. **Oro, A.E.**, Newton, K.J., and Walbot, V. (1984). Lack of Variation in B37N Mitochondrial DNA in Maize. *Maize Cooperative Newsletter* 58, 186.
3. **Oro, A.E.**, Newton, K.J., and Walbot, V. (1985). Molecular Analysis of the Inheritance and Stability of the Mitochondrial Genome of an Inbred Line of Maize. *Theoretical and Applied Genetics* 70, 287-293.
4. Hollenberg, S.M., Weinberger, C., Ong, E.S., Cerelli, G., **Oro, A.**, Lebo, R., Thompson, E.B., Rosenfeld, M.G., and Evans R.M.(1985). Primary Structure and Expression of a Functional Human Glucocorticoid Receptor cDNA. *Nature* 318, 635-641.
5. **Oro, A.E.**, Simerly, R.B., and Swanson, L.W.(1988). Estrous Cycle Variations in Levels of CCK Immunoreactivity within cells of Three Interconnected Sexually Dimorphic Forebrain Nuclei. *Neuroendocrinology* 47, 225-235.
6. **Oro, A.E.**, Hollenberg, S.M., and Evans R.M.(1988). Transcriptional Inhibition by a Glucocorticoid receptor- β -galactosidase Fusion protein. *Cell* 55, 1109-1114.
7. **Oro, A.E.**, Ong, E.S., Margolis, J.S., Posakony, J.W., McKeown, M., and Evans, R.M.(1988). The *Drosophila* gene *knirps*-related is a member of the steroid receptor gene superfamily. *Nature* 336, 493-496.
8. Hong, F.D., Huang, H.J., To, H., Young, L.J., **Oro, A.**, Bookstein, R., Lee, E.Y., and Lee, W.H.(1989). Structure of the Human Retinoblastoma Gene. *Proc Natl Acad Sci USA* 86, 5502-5506.
9. **Oro, A.E.**, Umesono, K., and Evans R.M. (1989). Steroid Hormone Receptor Homologs in Development. *Development* 107 (Suppl.), 133-140.
10. **Oro, A.E.**, McKeown, M., and Evans, R.M.(1990). Relationship between the product of the *Drosophila* ultraspiracle locus and the vertebrate retinoic acid responsive transcription factor, the Retinoid X receptor. *Nature* 347, 298-301.
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14. **Oro, A.E.**, McKeown, M., and Evans, R.M. (1992). The Drosophila nuclear receptors: new insight into the actions of nuclear receptors in development. *Curr Op Genet Dev* 2, 269-274.
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16. Fan, H., **Oro, A.E.**, Scott, M.P., and Khavari, P. A., (1997). Induction of basal cell carcinoma features in transgenic human skin expressing Sonic Hedgehog. *Nature Med* 3, 788-792.
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