CURRICULUM VITAE

BENJAMIN BAKALL, MD, PHD

Associated Retina Consultants, 1750 E Glendale Ave, Phoenix AZ 85020

EDUCATION AND PROFESSIONAL HISTORY

Partner, Associated Retina Consultants LTD	2017 - present
Clinical Assistant Professor. University of Arizona, College of Medicine Phoenix	2014 - present
Medical retina and Inherited retinal dystrophy specialist, Associated Retina Consultants, Phoenix, Arizona	2013 - present
Board certification, American Board of Ophthalmology	2012
Two year fellowship medical retina and inherited retinal diseases Department of Ophthalmology and Vision Sciences, University of Iowa	2011 - 2013
Residency – Ophthalmology, Department of Ophthalmology and Visual Science University of Arizona	2008 - 2011
Internship – General Surgery, Department of Surgery, University of Arizona	2007 - 2008
Postdoctoral research on Best macular dystrophy, bestrophin-1, bestrophin-2 Department of Ophthalmology and Visual Science, University of Arizona	2005 - 2007
PhD – Identification of the gene and protein causing Best Macular Dystrophy Uppsala University, Dept. of Genetics and Pathology, Uppsala, Sweden	2005
Medical Degree. Uppsala University, Uppsala, Sweden	2003

AWARDS

Clive H. Sell, MD Vision Foundation	2016
FFB, Foundation Fighting Blindness, Clinical/Research Fellowship Award for research in Inherited retinal degenerations - The Alan Laties career development program.	2011 - 2013
Postdoctoral fellowship, Swedish Research Council for research on Best Vitelliform Macular Dystrophy, bestrophin-1 and bestrophin-2. Mentor: Alan Marmorstein, University of Arizona.	2005 - 2007
The Anders Wall Award for Young Scientist of the year 2001	2001

MEMBERSHIPS AND EXPERT CONTRIBUTIONS

ARVO - ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY

AAO - AMERICAN ACADEMY OF OPHTHALMOLOGY

ASRS - AMERICAN SOCIETY OF RETINA SPECIALISTS

PHOENIX OPHTHALMOLOGICAL SOCIETY

ARIZONA OPHTHALMOLOGICAL SOCIETY

EXPERT CONTRIBUTOR FOR THE ONLINE DATABASE ON RARE INHERITED DISORDER, THE SWEDISH NATIONAL BOARD OF HEALTH AND WELFARE (SOCIALSTYRELSEN.SE/RAREDISORDERS)

MEDICAL CHAIR FOR FFB VISION WALK ARIZONA – 2014, 2017

DATA SAFETY AND MONITORING BOARD MEMBER – ALLERGAN/RETROSENSE – 2016

SPARK THERAPEUTICS, MEDICAL ADVISORY BOARD – 2017

NIGHTSTAR, CONSULTANT – 2017

AGTC, CONSULTANT – 2018

REVIEWER FOR SCIENTIFIC JOURNALS

American Journal of Ophthalmology Case Reports

Acta Ophthalmologica Scandinavica

European Journal of Neuroscience

Journal of Ocular Pharmacology and Therapeutics

Journal of Ophthalmology

Molecular Vision

Ophthalmic Genetics

Retinal Cases and Brief Reports

Survey of Ophthalmology

INVITED PRESENTATIONS

2018-03-20 Clinical trials for the RPE65 gene. AAPOS meeting 2018

2017-11-03 Keynote speaker: Genetic retinal disease. AZ AER Conference in Sedona, AZ

2017-08-11 ASRS 2017: Instructional Course: Retinal Gene Therapy: Clinical and Surgical Overview

2017-03-24 Pacific Retina Club 2017 at UCLA: Macular dystrophy in SCA1

2016-12-07 TGen, Translational Genomics Research Institute: Retinal dystrophies – from clinical diagnosis to molecular analysis

2016-08-13 ASRS 2016: Instructional Course: Retinal Genetics and Gene Therapy: Diagnosis, Clinical Management, and Genetic Intervention for Inherited Retina Disease.

2016-07-02 FFB VISIONS 2016, Baltimore, MD: Usher syndrome

2015-09-11 Foundation for blind children: Inherited retinal dystrophies and other childhood retinal diseases.

2015-06-27 FFB VISIONS 2015, Baltimore, MD: Usher syndrome

2014-09-11 ASRS 2014: Instructional Course: A Genetic Approach to Inherited Retinal Dystrophies: Clinical Classification of Common Retinal Dystrophies, Genotyping, and Gene Therapy

2014-06-20 FFB VISIONS 2014, Denver, CO: Usher syndrome

2013-12-06 Division of Genetics and Metabolism, Phoenix Childrens' Hospital. Title: Inherited retinal dystrophies

2013-06-28 FFB VISIONS 2013, Baltimore, MD: Update & Overview: Usher syndrome

2012-11-15 National Eye Institute: Applied Anti-VEGF therapy and inherited retinal diseases.

2012-04-24 Department of ophthalmology and Vision Research, University of Arizona, Tucson, AZ: Stargardt disease

2012-04-23 Frontiers of medical research seminar series, University of Arizona: Age-related macular degeneration and Stargardt disease – treatment

2010-11-04 National Eye Institute. Title: Best vitelliform macular dystrophy

PUBLICATIONS AND PAPERS

1. **BAKALL B**, HARIPRASAD SM, KLEIN KA. EMERGING GENE THERAPY TREATMENTS FOR INHERITED RETINAL DISEASES. OPHTHALMIC SURG LASERS IMAGING RETINA. 2018 JUL 1;49(7):472-478

2. KHAN KN, EL-ASRAG ME, KU CA, HOLDER GE, MCKIBBIN M, ARNO G, POULTER JA, CARSS K, BOMMIREDDY T, BAGHERI S, **BAKALL B**, SCHOLL HP, RAYMOND FL, TOOMES C, INGLEHEARN CF, PENNESI ME, MOORE AT, MICHAELIDES M, WEBSTER AR, ALI M; FOR NIHR BIORESOURCE-RARE DISEASES AND UK INHERITED RETINAL DISEASE CONSORTIUM. SPECIFIC ALLELES OF CLN7/MFSD8, A PROTEIN THAT LOCALIZES TO PHOTORECEPTOR SYNAPTIC TERMINALS, CAUSE A SPECTRUM OF NONSYNDROMIC RETINAL DYSTROPHY. INVEST OPHTHALMOL VIS SCI. 2017 JUN 1;58(7):2906-2914.

3. TOMPSON SW, JOHNSON C, ABBOTT D, **BAKALL B**, SOLER V, YANOVITCH TL, WHISENHUNT KN, KLEMM T, ROZEN S, STONE EM, JOHNSON M, YOUNG TL. REDUCED PENETRANCE IN A LARGE CAUCASIAN PEDIGREE WITH STICKLER SYNDROME. OPHTHALMIC GENET. 2017 JAN-FEB;38(1):43-50.

4. SINGER JR, **BAKALL B**, GORDON GM, REDDY RK. TREATMENT OF VITAMIN A DEFICIENCY RETINOPATHY WITH SUBLINGUAL VITAMIN A PALMITATE. DOC OPHTHALMOL. 2016 APR;132(2):137-45.

5. ALMEIDA DR, CHIN EK, SHAH SS, **BAKALL B**, GEHRS KM, BOLDT HC, RUSSELL SR, FOLK JC, MAHAJAN VB. COMPARISON OF MICROBIOLOGY AND VISUAL OUTCOMES OF PATIENTS UNDERGOING SMALL-GAUGE AND 20-GAUGE VITRECTOMY FOR ENDOPHTHALMITIS. CLIN OPHTHALMOL. 2016 JAN 22;10:167-72

6. MEARS K, **BAKALL B**, HARNEY LA, PENTICOFF JA, STONE EM. AUTOSOMAL DOMINANT MICROCEPHALY ASSOCIATED WITH CONGENITAL LYMPHEDEMA AND CHORIORETINOPATHY DUE TO A NOVEL MUTATION IN KIF11. JAMA OPHTHALMOL. 2015

7. BRAUN TA, MULLINS RF, WAGNER AH, ANDORF JL, JOHNSTON RM, **BAKALL B**, DELUCA AP, FISHMAN GA, LAM BL, WELEBER RG, CIDECIYAN AV, JACOBSON SG, SHEFFIELD VC, TUCKER BA, STONE EM. NON-EXOMIC AND SYNONYMOUS VARIANTS IN ABCA4 ARE AN IMPORTANT CAUSE OF STARGARDT DISEASE. HUM MOL GENET. 2013 AUG 4.

8. **BAKALL B**, FOLK JC, BOLDT HC, SOHN EH, STONE EM, RUSSELL SR, MAHAJAN VB. AFLIBERCEPT THERAPY FOR EXUDATIVE AGE-RELATED MACULAR DEGENERATION RESISTANT TO BEVACIZUMAB AND RANIBIZUMAB. AM J OPHTHALMOL. 2013 JUL;156(1):15-22

9. XU X, REINHARDT JM; HU Q; **BAKALL B**; TLUCEK P; ABRAMOFF M RETINAL VESSEL WIDTH MEASUREMENT AT BRANCHINGS USING AN IMPROVED ELECTRIC FIELD THEORY-BASED GRAPH APPROACH. PLOS ONE 2012 ;7(11)

10. **BAKALL B**, MCLAUGHLIN P, STANTON JB, HARTZELL HC, MARMORSTEN LY, MARMORSTEIN AD BESTROPHIN-2 IS INVOLVED IN THE GENERATION OF INTRAOCULAR PRESSURE. IOVS 2008, APR;49(4):1563-70

11. MCLAUGHLIN PJ, **BAKALL B**, CHOI J, LIU Z, SASAKI T, DAVIS EC, MARMORSTEIN AD, MARMORSTEIN LY. LACK OF FIBULIN-3 CAUSES EARLY AGING AND HERNIATION, BUT NOT MACULAR DEGENERATION IN MICE. HUM MOL GENET. 2007 DEC 15;16(24):3059-70. EPUB 2007 SEP 13

12. **BAKALL B**, RADU RA, STANTON JB, BURKE JM, MCKAY BS, WADELIUS C, MULLINS RF, STONE EM, TRAVIS GH, MARMORSTEIN AD. (2007) ENHANCED ACCUMULATION OF A2E IN INDIVIDUALS HOMOZYGOUS OR HETEROZYGOUS FOR MUTATIONS IN BEST1 (VMD2). EXP EYE RES. JUL;85(1):34-43. 2007 MAR 19.

13. ROSENTHAL R, **BAKALL B**, KINNICK T, PEACHEY N, WIMMERS S, WADELIUS C, MARMORSTEIN A AND STRAUSS O. (2006) EXPRESSION OF BESTROPHIN-1, THE PRODUCT OF THE VMD2 GENE, MODULATES VOLTAGE DEPENDENT CA^{2+} CHANNNELS IN RETINAL PIGMENT EPITHELIUM. FASEB JOURNAL. 2006 JAN;20(1):178-80.

14. MARMORSTEIN AD, STANTON JB, YOCOM J, **BAKALL B**, SCHIAVONE MT, WADELIUS C, MARMORSTEIN AND PEACHEY NS. (2004) A MODEL OF BEST VITELLIFORM MACULAR DYSTROPHY IN RATS, INVEST. OPHTHALMOL. VIS. SCI. 2004 OCT;45(10):3733-9

15. **BAKALL B**, MARMORSTEIN LY, HOPPE G, WADELIUS C AND MARMORSTEIN AD. (2003) EXPRESSION AND LOCALIZATION OF BESTROPHIN DURING NORMAL MOUSE DEVELOPMENT. INVEST. OPHTHALMOL. VIS. SCI. 44(8):3622-3628.

16. LOUISE EKSANDH, **BENJAMIN BAKALL**, BIRGITTA BAUER, BERNDT EHINGER, CLAES WADELIUS AND STEN ANDRÉASSON (2001) BEST'S VITELLIFORM MACULAR DYSTROPHY CAUSED BY A NEW MUTATION (VAL89ALA) IN THE VMD2 GENE. OPHTHALMIC GENET. 22:107-15.

17. **BAKALL B**, MAYORDOMO R, HALLBÖÖK F, WADELIUS C (2000) ANALYSIS OF SUBCELLULAR LOCATION OF BESTROPHIN IN TRANSFECTED RPE CELL LINES. GENE FUNCTION & DISEASE 3-4:128-133

18. PONJAVIC V, EKSANDH L, ANDREASSON S, SJÖSTRÖM K, **BAKALL B**, WADELIUS C, EHINGER B (1999) CLINICAL EXPRESSION OF BEST'S VITELLIFORM MACULAR DYSTROPHY IN SWEDISH FAMILIES WITH MUTATIONS IN THE BESTROPHIN GENE. OPHTHALMIC GENETICS 20:251-257

19. **BAKALL B**, MARKNELL T, INGVAST S, KOISTI MJ, SANDGREN O, LI W, BERGEN AAB, ANDREASSON S, ROSENBERG T, PETRUKHIN K, WADELIUS C (1999) THE MUTATION SPECTRUM OF THE BESTROPHIN PROTEIN – FUNCTIONAL IMPLICATIONS. HUMAN GENETICS 104:383-389

20. PETRUKHIN K, KOISTI MJ, **BAKALL B**, LI W, XIE G, MARKNELL T, SANDGREN O, FORSMAN K, HOLMGREN G, ANDREASSON S, VUJIC M, BERGEN AAB, MCGARTY-DUGAN V, FIGUEROA D, AUSTIN CP, METZKER ML, CASKEY CT, WADELIUS C (1998) IDENTIFICATION OF THE GENE RESPONSIBLE FOR BEST MACULAR DYSTROPHY. NATURE GENETICS 19:241-247

21. MELBERG A, ARNELL H, DAHL N, STALBERG E, RAININKO R, OLDFORS A, **BAKALL B**, LUNDBERG PO, HOLME E (1996) ANTICIPATION OF AUTOSOMAL DOMINANT PROGRESSIVE EXTERNAL OPHTHALMOPLEGIA WITH HYPOGONADISM.MUSCLE NERVE. DEC;19(12):1561-9.

CONFERENCE PRESENTATIONS AND POSTERS

ARVO, Annual conference for The Association for Research in Vision and Ophthalmology

ARVO 2018

Benjamin Bakall [1, 2];, James Singer[2, 3], Jeaneen Andorf[4], Edwin M Stone[4], Mary Champion[2, 5]. [1.] Ophthalmology, University of Arizona College of Medicine Phoenix, Phoenix, AZ, United States.[2.] Associated Retina Consultants, Phoenix, AZ, United States. [3.] Iowa Retina Consultants, West Des Moines, IA, United States. [4.] Department of Ophthalmology and Visual Sciences, Stephen A. Wynn Institute for Vision Research, University of Iowa, Iowa City, IA, United States. [5.] Department of Ophthalmology, The University of Kansas, Kansas City, KS, United States. Heimler syndrome with macular dystrophy caused by novel PEX6 gene variants

Yousef J. Cruz Inigo[1,2], Kendra Klein[1,2], **Benjamin Bakall**[1,2], [1]Associated Retina Consultants, Phoenix, Arizona, United States; [2]University of Arizona College of Medicine , Phoenix, Arizona, United States. Phenotype-Genotype Correlation among Patients with Pathogenic CRB1 gene Variants

2018 University of Arizona College of Medicine – Phoenix, Scholarly Project - Annual Research Symposium
Neet Shah, Benjamin Bakall, M.D.,PhD, Associated Retina Consultants, Visual Field Analysis for Functional Visual Loss

ARVO 2017

Benjamin Bakall[1,2] , Pooja Biswas[4] , Hiroko Matsui[3] , John Suk[3] , Amalio Telenti[5] , Kelly A. Frazer[3] , Radha Ayyagari[4]
[1] University of Arizona College of Medicine Phoenix, Phoenix, Arizona, United States; [2] Associated Retina Consultants, Phoenix, Arizona, United States; [3] Institute for Genomic Medicine, University of California San Diego, San Diego, California, United States; [4] Shiley Eye Institute, University of California San Diego, La Jolla, California, United States; [5] Human Longevity Inc, San Diego, California, United States. Identification of a novel *SDCCAG8* gene variant in a family with retinitis pigmentosa and kidney failure.

Kent W. Small[2,1] , Fadi Shaya[2,1] , Svetlana Yelchits[3] , Adam P. DeLuca[4] , Richard A. Lewis[5] , Monique J. Leys[6] , Nitin Udar[2,1] , **Benjamin Bakall**[7] , Klaus Rohrschneider[8] , Bernard Puech[9] , Virginie Puech[10] , Elise Heon[11] , James C. Folk[12] , Gerald A. Fishman[13] , Christine Garabetian[2,1] , Edwin M. Stone[4]
[1] Retina, Molecular Insight, Research Foundation, Los Angeles, California, United States; [10] Ophthalmologist in Marcq-en-Barœul, Marcq-en-Barœul, France; [11] Hospital for Sick Children, Toronto, Ontario, Canada; [12] University of Iowa Hospitals & Clinics, Iowa City, Iowa, United States; [13] Chicago Lthouse for the Blind & Vis Impaired, Chicago, Illinois, United States; [2] Macula and Retina Institute, Glendale, California, United States; [3] Jules Stein Eye Institute, Los Angeles, California, United States; [4] University of Iowa, Iowa City, Iowa, United States; [5] Baylor College of Medicine, Houston, Texas, United States; [6] WVU Eye Institute, Morgantown, West Virginia, United States; [7] University of Arizona College of Medicine, Phoenix, Arizona, United States; [8] University of Heidelberg, Heidelberg, Germany; [9] Service d'Exploration de la vision et Neuro-ophtalmologie CHRU, Lille, France. North Carolina macular dystrophy: mutations found in 12 additional families

ARVO 2016

Kent W. Small[1] , Adam P. DeLuca[5] , Frans P. Cremers[3] , Carl Hoyng[3] , Monique J. Leys[2] , **Benjamin Bakall**[6] , Richard A. Lewis[4] , Rosemary Silva-Garcia[1] , Klaus Rohrschneider[7] , Edwin M. Stone[5,8]
[1] Molecular Insight, Research Foundation, Glendale, California, United States; [2] cell biology, neurology and anatomy, WVU Eye Institute, Morgantown, West Virginia, United States; [3] Biology, Raboud University Medical Center, Nijmegen, Netherlands; [4] Baylor College of Medicine, Houston, Texas, United States; [5] Department of Ophthalmology and Visual Sciences, Stephen A. Wynn Institute for Vision Research, Iowa City, Iowa, United States; [6] Associated Retina Consultants, University of Arizona College of Medicine, Phoenix, Arizona, United States; [7] University of Heidelberg, Heidelberg, Germany; [8] The Stephen A. Wynn Institute for Vision Research, Iowa City, Iowa, United States B0233: North Carolina Macular Dystrophy (NCMD / MCDR1) mutations found; PRDM13

ARVO 2014

Bakall, B[1,2,3], Sohn, EH[3], Riley J[3], Brack D[3], Stone EM[3], [1]Associated Retina Consultants, Phoenix, AZ, United States. [2]Ophthalmology, University of Arizona, College of Medicine Phoenix, Phoenix, AZ, United States. [3]Dept of Ophthalmology, Wynn Institute for Vision Research, University of Iowa, Iowa City, IA, United States. Novel mutations and change of nomenclature for pathogenic variants in the TIMP3 gene causing Sorsby fundus dystrophy.

ARVO 2013

Bakall, B[1], Riker MJ[1], Patankar PP[1], Johnston, RM[1], Brack DK[1], Riley J[1], Mullins, RF[1], Anderson, MG[2], Stone, EM[1],
[1]Ophthalmology and Visual Sciences, University of Iowa, Iowa City, IA; [2]Molecular Physiology and Biophysics, University of Iowa, Iowa City, IA. Analysis of Phenotype in Mouse Models of Stargardt Disease for Identification of Modifying Genes

ARVO 2012

Bakall B[1A], Daggett HT[1A], Johnston RM[1A], Brzeskiewicz PM[1A], Kimberling W2, Stone EM[1A,1B] [A]Institute for Vision Research, Ophthalmology and Visual Sciences, [B]Howard Hughes Medical Institute, [1]University of Iowa, Iowa City, IA; [2]Center for the Study and Treatment of Usher Syndrome, Boys Town National Research Hospital, Omaha, NE. Mutation Analysis In A Large Cohort Of Individuals With Usher Syndrome

ARVO 2009
Zhang. Y[1], **Bakall B**.[1], Marmorstein AD[1,2].
[1]Ophthalmology & Vision Science, University of Arizona, Tucson, AZ; [2]College of Optical Sciences, Tucson, AZ. Bestrophin-2 Is Expressed in Human Non-Pigmented Epithelia but Not Retinal Pigment Epithelium

ARVO 2008
Zhang Y.[1], **Bakall B**[1], McLaughlin PJ[1], Marmorstein LY[1], Marmorstein AD[1,2]
[1]Department of Ophthalmology and Vision Science University of Arizona, Tucson, AZ. [2]College of Optical Sciences, Tucson, AZ, Bestrophin-2 and Generation of Intraocular Pressure.

ARVO 2007
Bakall B[1], McLaughlin PJ[1], Stanton JB[1], Hartzell HC, Marmorstein LY[1], Marmorstein AD[1].
[1]Department of Ophthalmology and Vision Science University of Arizona, Tucson, AZ. [2]Department of Cell Biology and Center for Neurodegenerative Disease, Emory University School of Medicine, Atlanta, GA. #2983, The Bestrophin-2 knock-out mouse: Histological and functional analysis.

ARVO 2006
Bakall B.[1A,2], Radu R.A. [3], Stanton J.B.[1A], Burke J.[4], MacKay B.S.[1A], Wadelius C.[2], Appelqvist C.[5], Travis G.H. [3,6], Marmorstein A.D.[1A,1B]. [A]Department of Ophthalmology and Vision Science, [B]Optical Sciences Center, [1]University of Arizona, Tucson, AZ; [2]Department of Genetics and Pathology, Uppsala University, Uppsala, Sweden; [3]Jules Stein Eye Institute, University of California, Los Angeles, CA; [4]Department of Ophthalmology, Medical College of Wisconsin, The Eye Institute, Milwaukee, WI; [5]Eye Clinic, Mora hospital, Mora, Sweden; [6]Department of Biological Chemistry, University of California, School of Medicine, Los Angeles, CA. Analysis of Donor Eyes From a Best Vitelliform Macular Dystrophy Patient, Homozygous for the Bestrophin W93C Mutation

Kinnick T.R.[1A], Stanton J.B.[1A], **Bakall B**.[1A], McKay B.S.[1A,1B], Marmorstein A.D.[1A,1C]. [A]Ophthalmology and Vision Science, [B]Cell Biology and Anatomy, [C]Optical Sciences Center, [1]University of Arizona, Tucson, AZ. Accumulation of Lipofuscin in Response to Phagocytosis of Photoreceptor Outer Segments in Fetal Human RPE Cells

ARVO 2004
Marmorstein AD[1], Rosenthal R[2], Stanton JB[1], **Bakall B[3]**, Wadelius C[3], Marmorstein LY [1], Goldberg AFX[4], Peachey N[5], Strauss O[6], [1]Ophthalmology, University of Arizona, Yucson, AZ; [2]Institut fur Klinische Physiologie, Universitätsklinikum Benjamin Franklin, Berlin, Germany; [3]Dep. of genetics and pathology, Uppsala University, Uppsala, Sweden, [4]Eye Research Institute, Oakland University, Rochester, MI; [5]Ophthalmic Research, Cole Eye Inst., Cleveland, OH; [6]Experimentelle Ophthalmologie, Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany. Bestrophin is not a Chloride Channel.

Strauss O[1], Marmorstein AD[2], Marmorstein LY[2], **Bakall B[3]**, Stanton JB[1], Wadelius C[3], Peachey N[4], Rosenthal R[5]. [1]Ophthalmologie, Universitätsklinikum Hamburg-Eppendorf, Hamburg, Germany; [2]Ophthalmology, University of Arizona, Yucson, AZ; [3]Dep. of genetics and pathology, Uppsala University, Uppsala, Sweden; [4]Ophthalmic Research, Cole Eye Inst., Cleveland, OH; [5]Institut fur Klinische Physiologie, Universitätsklinikum Benjamin Franklin, Berlin, Germany. Bestrophin modulates activity of L-type Ca2+ channels in RPE cells

ARVO 2003
B.Bakall[1], N.S. Peachey[2], L.Y. Marmorstein[2], C.Wadelius[1], A.D. Marmorstein[2]. [1]Genetics and Pathology, Uppsala University, Uppsala, Sweden; [2]Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH. Correlation of Bestrophin Protein Expression in the Basolateral Plasma Membrane of the Mouse RPE with the Onset of Photoreceptor Activity in the Retina.

ARVO 2002
Bakall B. [1], Aspgren F[1], Marmorstein A.D [2], Marmorstein L.Y , Wadelius C [1]. [1]Genetics and Pathology, Uppsala University, Uppsala, Sweden. [2]Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH. Characterization of VMD2 Transcripts in Human and Transcription Levels in Mice.

ARVO 2001
Hoppe G[1], Marmorstein L.Y[1], **Bakall B.** [2], Penncock E.A[1], Kyle N.A[1], Wang X[1], Wadelius C [2], Marmorstein A.D[1] Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH; [2]Genetics and Pathology, Uppsala University, Uppsala, Sweden. Identification and characterization of a mouse homologue of bestrophin.