

## BIOGRAPHICAL SKETCH

NAME <b>IFAT SHER, PH.D.</b>	POSITION TITLE <b>RESEARCHER, HEAD OF THE RESTORATIVE RETINAL RESEARCH LABORATORY, GOLDSCHLEGER EYE INSTITUTE, SHEBA MEDICAL CENTER</b>
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EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Technion-Israel Institute of Technology, Haifa, Israel	B.A	1993-96	Biology
Technion-Israel Institute of Technology, Haifa, Israel	M.Sc	1996-98	Biology
Technion-Israel Institute of Technology, Haifa, Israel	Ph.D	1998-2004	Biology
University of Guelph, Guelph, Ontario, Canada	Post-doctoral fellow	2005-07	Biology
Cornell University, NY, USA	Research Associate Fellow	2008-2011	Biology

## RESEARCH AND PROFESSIONAL EXPERIENCE

- 2016- pres. Researcher, Goldschleger Eye Institute, Sheba Medical Center, Tel Hashomer, Israel
- 2012-2016 Senior Research Associate, Retinal Research Lab (Headed by Dr. Ygal Rotenstreich (MD), Goldschleger Eye Institute, Sheba Medical Center, Tel Hashomer, Israel
- 2015- pres. Founder and Chief Scientist, Epitech-Mag Ltd. Israel
- 2017- pres. Chief Scientist, EVERADS-Therapy Ltd. Israel
- 2017 Grant reviewer, The Israeli National Institute for Psychobiology
- 2017 Organizer, ARVO2017 Education course

## FELLOWSHIPS/AWARDS

- 2014 Israeli Society of Vision and Eye Research Travel Award
- 2013 Shimon Rokah Award for distinguished young researcher
- 2005 Canadian Institutes of Health Research Fellowship Award for distinguished postdoctoral fellows (\$135,000; a three year award)

## FELLOWSHIPS/AWARDS (continued)

- 2003 Technion scholarship for excellence; Graduate school  
2002 Katzir Student Travel Fellowship for outstanding graduate students  
2002-2004 Sandor Szego Excellence in Teaching Awards  
2001 Wolf Foundation Scholarship for distinguished Ph.D. students  
2000 EMBO Fellowship for outstanding graduate students  
1997 Wolf Foundation Scholarship for distinguished M.Sc. students  
1993-1996 President of the Technion Awards for outstanding B.A. students in each year

## AFFILIATIONS

- 2012-present Member, Israeli Society of Vision and Eye Research  
2013-present Member, Association for Research in Vision and Ophthalmology (ARVO), USA

## PUBLICATIONS

1. **Sher I**, Weizman A, Mink-Lubinsky S, Lang T, Adir N, Shcomburg D, Ron D. Mutations uncouple human FGF-7 biological activity and receptor binding and support broad specificity in the secondary receptor binding site of FGFs. **J. Biol. Chem.** 1999; 274, 35016- 35022.
2. **Sher I**, Lang T, Mink-Lubinsky S, Kuhn J, Adir N, Chatterjee S, Shcomburg D, Ron D. Identification of residues important both for primary receptor binding and specificity in FGF-7. **J. Biol. Chem.** 2000; 275, 34881-34886.
3. Yeh BK, Igarashi M, Eliseenkova AV, Plotnikov AN, **Sher I**, Ron D, Aaronson SA, Mohammadi M. Structural basis by which alternative splicing confers specificity in fibroblast growth factor receptors **Proc. Natl. Acad. Sci. U.S.A** 2003; 100, 2266–2271.
4. **Sher I**, Yeh BK, Mohammadi M, Adir N, Ron D. Structure-based mutational analyses in FGF7 identify new residues involved in specific interaction with FGFR2IIIb. **FEBS Lett.** 2003; 552, 150-4.
5. Preger E, Ziv I, Shabtay A, **Sher I**, Tsang M, Dawid IB, Altuvia Y, Ron D. Alternative splicing generates an isoform of the human SEF gene with altered subcellular localization and specificity. **Proc. Natl. Acad. Sci. U.S.A** 2004; 101, 1229-34.
6. **Sher I**, Zisman-Rozen S, Eliah L, Whitelock JM, Maas-Szabowski N, Yamada Y, Breitkreutz D, Fusenig N.E., Arikawa-Hirasawa E, Iozzo RV, Bergman R, Ron, D. Targeting perlecan in human keratinocytes reveals novel roles for perlecan in

- epidermal formation. **J Biol Chem.** 2006; 281(8), 5178-87. \**This paper was highlighted by the Faculty of 1000*
- 7. Shaoul R, Eliahu L, **Sher I**, Hamlet Y, Miselevich I, Goldshmidt O, Ron D. Elevated expression of FGF7 protein is common in human gastric diseases. **Biochem Biophys Res Commun.** 2006; 350(4), 825-833.
  - 8. Patel VN, Likar KM, Zisman-Rozen S, Cowherd SN, Lassiter KS, **Sher I**, Gallagher JT, Yates EA, Turnbull JE, Ron D, Hoffman MP. Specific heparan sulfate structures modulate FGF10-mediated submandibular gland epithelial morphogenesis and differentiation. **J Biol Chem.** 2008; 283(14), 9308-17
  - 9. **Sher I**, Adham SA, Petrik J, Coomber BL. Autocrine VEGF-A/KDR loop protects epithelial ovarian carcinoma cells from anoikis. **Int J Cancer.** 2009; 124(3):553-61.
  - 10. Adham SA, **Sher I**, Brenda L. Coomber. Molecular blockade of VEGFR2 in human epithelial ovarian carcinoma cells. **Lab Invest.** 2010; 90(5):709-23
  - 11. **Sher I**, Hanemann CO, Karplus PA, Bretscher A. The tumor suppressor merlin controls growth in its open state, and phosphorylation converts it to a less-active more-closed state. **Dev Cell.** 2012; 17;22(4):703-5.
  - 12. Skaat A\*, **Sher I\***, Kolker A, Elyasiv S, Rosenfeld E, Mhajna M, Melamed S, Belkin M, Rotenstreich Y. Pupillometer-based objective chromatic perimetry in normal eyes and patients with retinal photoreceptor dystrophies. **Invest Ophthalmol Vis Sci.** 2013 Apr 17;54(4):2761-70. \*Equal contribution
  - 13. Rotenstreich Y \*, Belkin M, Sadetzki S, Chetrit A, Ferman-Attar G, **Sher I**, Harari A, Shaish A, Harats D. (\* Corresponding author) Treatment with 9-cis β-carotene-rich powder in patients with retinitis pigmentosa: a randomized crossover trial. **JAMA Ophthalmol.** 2013 Aug;131(8):985-92.
  - 14. Tzameret A, **Sher I**, Belkin M, Treves A.J, Meir A, Nagler A, Levkovich-Verbin H, Barshack I, Rosner M, Rotenstreich Y. Transplantation of human bone marrow mesenchymal stem cells as a thin subretinal layer ameliorates retinal degeneration in a rat model of retinal dystrophy. **Exp. Eye Res.** 2014 Jan 118: 135-144.
  - 15. Rotenstreich Y, Skaat A, **Sher I**, Kolker A, Rosenfeld E, Melamed S, Belkin M, Novel technique: a pupillometer-based objective chromatic perimetry. **Ophthalmic Technologies XXIV**, edited by Fabrice Manns, Per G. Söderberg, Arthur Ho, Proc. SPIE 2014. 8930, **Ophthalmic Technologies XXIV**, 89300G
  - 16. Rotenstreich Y, Tzameret A, Levi N, Kalish S, **Sher I**, Zangen A, Belkin M, Repetitive magnetic stimulation improves retinal function in a rat model of retinal dystrophy. Proc. SPIE 2014. 8930, **Ophthalmic Technologies XXIV**, 893014.
  - 17. Rotenstreich Y, Tzameret A, Kalish SE, Belkin M, Meir A, Treves AJ, Nagler A, **Sher I**. A novel system for minimally invasive transplantation of bone marrow derived stem cells as a thin layer in the subretina and extravascular spaces of the choroid for treatment of retinal degeneration. **Harefua** 2015 Feb;154(2):84-8, 138.

18. Levy I\*, **Sher I\***, Corem-Salkmon E, Ziv O, Meir A, Treves AJ, Nagler A, Kalter-Leibovici O, Margel S, Rotenstreich Y. Bioactive magnetic near Infra-Red fluorescent core-shell iron oxide/human serum albumin nanoparticles for controlled release of growth factors for augmentation of human mesenchymal stem cell growth and differentiation. **Journal of Nanobiotechnology**. \*Equal contribution
19. Tzameret A, **Sher I**, Belkin M, Treves AJ, Meir A, Nagler A, Levkovitch-Verbin H, Rotenstreich Y\*, Solomon AS\*. (\* Equal contribution, Corresponding authors) Epiretinal transplantation of human bone marrow mesenchymal stem cells rescues retinal and vision function in a rat model of retinal degeneration. **Stem Cell Res.** 2015 Sep;15(2):387-94.
20. Chibel R, **Sher I**, BenNer D, Mahajna M, Achiron A, Haj-Yahia S, Skaat A, Berchenko Y, Oberman B, Kalter-Leibovici O, Freedman L, Rotenstreich Y. Chromatic multifocal pupillometer for objective perimetry and diagnosis of patients with Retinitis Pigmentosa. **Ophthalmology**. 2016 (123):1898-1911
21. Rotenstreich Y, Tzameret A, Kalish SA, Bubis Ettel, Belkin M, Moroz I, Rosner M, Levy I, Margel S, **Sher I**. A minimally invasive adjustable-depth blunt injector for delivery of pharmaceuticals into the posterior pole. **Acta Ophthalmologica**. (In press)
22. Tzameret A, Kalish SA, **Sher I**, Meir A, Levy I, Margel S, Moroz I, Rosner M, Treves AJ, Nagler A, Belkin M, Rotenstreich Y. Long term-safety of transplantation of human bone-marrow mesenchymal stem cells in the extravascular spaces of the choroid of rabbits. **Stem Cells International**. (accepted for publication)

#### ACTIVE PARTICIPATION IN SCIENTIFIC MEETINGS

Date	Country	Subject / Meeting	Role (Speaker, Member of Steering Committee, Active Participation etc.)
2012	Israel	Israel Society for Vision& Eye Research 32th Annual Meeting	Active Participation- 4 poster presentations
2013	ISRAEL	Israel Society for Vision& Eye Research 33th Annual Meeting	Active Participation- 2 TALKS and 5 poster presentations
2013	USA	Association for Research in Vision and Ophthalmology	Active Participation- 2 poster presentations
2013	Sweden	The European Hematology Association Annual Meeting	Speaker

2014	USA	Association for Research in Vision and Ophthalmology	Active Participation- 2 poster presentations
2014	Israel	Israel Society for Vision& Eye Research 34th Annual Meeting	Active Participation- 4 presentations
2015	Israel	Israel Society for Vision& Eye Research 34th Annual Meeting	Active Participation- 5 presentations
2015	USA	Association for Research in Vision and Ophthalmology	Active Participation- 1 paper, 1 poster presentation
2016	Israel	Israel Society for Vision& Eye Research 35th Annual Meeting	Active Participation- 6 presentations
2016	USA	Association for Research in Vision and Ophthalmology	Active Participation- 1 paper, 3 poster presentations
2016	Italy	ISOPT	Speaker – 2 papers
2017	Israel	Israel Society for Vision& Eye Research 36th Annual Meeting	Active Participation- 5 presentations
2017	USA	Association for Research in Vision and Ophthalmology	ARVO2017 Education course organizer, 1 paper, 1 poster

### ABSTRACTS (Last 5 years)

1. Rotenstreich Y, A. Tzameret, **I. Sher**, M. Belkin, A J. Treves, A. Nagler. Stem Cell-Based Therapy for Retinal Dystrophies. Hereditary Retinal Dystrophies and Ocular Tumors Igud Meeting, Israel 2012
2. Rotenstreich Y, **I. Sher**, A. Tzameret, A. Zangen, M. Belkin. Transcranial Magnetic Stimulation: A Novel Non-Invasive And Painless Treatment For Retinal Dystrophy. Hereditary Retinal Dystrophies And Ocular Tumors Igud Meeting, Israel 2012
3. A. Skaat, E. Rosenfeld, **I. Sher**, M. S. Melamed, M. Belkin, Rotenstreich Y. Pupillometer-Based Objective Chromatic Perimetry In Normal Subjects And Glaucoma Patients. Glaucoma Igud Meeting, Israel 2012
4. A. Tzameret, **I. Sher**, M. Belkin, A J. Treves, A. Nagler, Rotenstreich Y. Subretinal Transplantation Of Human Adult Mesenchymal Stem Cells Ameliorate Retinal Structure And Function In A Rat Model Of Retinal Dystrophies. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
5. M O. Mhajna, A. Skaat, **I. Sher**, E. Rosenfeld, S. Melamed, M. Belkin, Rotenstreich Y. Chromatic Pupillometer-Based Perimetry In Patients With Retinal Dystrophies. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
6. A. Matani, M. Belkin, **I. Sher**, Rotenstreich Y. Reduction In The Incidence Of Autosomal Recessive Retinitis Pigmentosa In Israel: Probably Due To Lowered Consanguinity Rates. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
7. Rotenstreich Y, A. Tzameret, **I. Sher**, M. Belkin. A Novel Technique For Subretinal Transplantation Of Cells Covering Most Of The Subretina In Rat And Rabbit Models. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013

8. A. Skaat, **I. Sher**, E. Rosenfeld, S. Melamed, M. Belkin, Rotenstreich Y. Chromatic Pupillometer-Based Perimetry In Glaucoma Patients. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
9. **Sher I**, A. Tzameret, A. Zangen, M. Belkin, Rotenstreich Y. Repetitive Magnetic Stimulation Improves Retinal Function In A Rat Model Of Retinal Dystrophy. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
10. Rotenstreich Y, M. Belkin, S. Sadetzki, A. Chetrit, G. Ferman-Attar, **I. Sher**, A. Harari, A. Shaish, D. Harats. Responder Analysis Of The Effect Of 9-Cis -Carotene Rich Powder On Erg And Visual Field In Patients With Retinitis Pigmentosa. Israel Society For Vision& Eye Research 33rd Annual Meeting, Israel 2013
11. **I. Sher**, A. Tzameret, M. Belkin, A J. Treves, A. Nagler A, Rotenstreich Y. A New Method For Subretinal Transplantation Of Human Adult Stem Cells Preserves Retinal Structure Along The Entire Retina And Rescues Retinal Function In A Rat Model Of Retinal Dystrophies. Association For Research In Vision And Ophthalmology, USA 2013
12. Rotenstreich Y, A. Skaat, **I. Sher**, A. Kolker, E. Rosenfeld, S. Melamed, M. Belkin. Novel Technique: A Pupillometer-Based Objective Chromatic Perimetry. Association For Research In Vision And Ophthalmology, USA 2013
13. Rotenstreich Y, A. Tzameret, **I. Sher**, M. Belkin, A J. Treves, A. Nagler. A Novel Method For Subretinal Transplantation Of Human Adult Bone Marrow Mesenchymal Stem Cells Ameliorates The Deterioration Of Retinal Structure And Function In A Rat Model Of Retinal Dystrophies. The European Hematology Association Annual Meeting, Sweden 2013
14. Rotenstreich Y, A. Belkin, S. Kalish, **I. Sher**, M. Belkin. Repetitive Magnetic Stimulation Reduces Corneal Permeability. SPEI Photonics West, USA 2014
15. Rotenstreich Y, A. Tzameret, N. Levi, S. Kalish, **I. Sher**, A. Zangen, M. Belkin. Repetitive Magnetic Stimulation Improves Retinal Function In A Rat Model of Retinal Dystrophy SPEI Photonics West, USA 2014
16. Rotenstreich Y, A. Skaat, **I. Sher**, A. Kolker, E. Rosenfeld, S. Melamed, M. Belkin.
17. Novel Technique: A Pupillometer-Based Objective Chromatic Perimetry. SPEI Photonics West, USA 2014
18. Rotenstreich Y, S. Kalish, **I. Sher**, A. Tzameret, M. Belkin, A.J. Treves, A. Nagler. A new method for subretinal transplantation of human cells as a thin layer in rabbit and porcine eyes. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2014
19. Chibel R, Mhajna MO, **Sher I**, Belkin M, Rotenstreich Y. Chromatic pupillometer-based perimetry in normal eyes and patients with retinitis pigmentosa. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2014
20. Mhajna MO, Chibel R, **Sher I**, Belkin M, Rotenstreich Y. Chromatic pupillometer-based perimetry in patients with Best's vitelliform macular dystrophy. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2014
21. S. H. Yahia, R. Chibel, M. O. Mhajna, T. Kornhauser, **I. Sher**, M. Belkin, Rotenstreich Y. Objective chromatic pupillometer – pupillary responses of healthy subjects to chromatic stimulation from small 2.5-mm-diameter spots. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2014
22. Rotenstreich Y, S. E. Kalish, A. Tzameret, **I. Sher**, M. Belkin, A. J. Treves, A. Nagler. A new method for subretinal transplantation of human cells as a thin layer in rabbit and porcine eyes. Association For Research In Vision And Ophthalmology, USA 2014
23. **Sher-Rosenthal I**, Chibel R, Mhajna MO, Kornhauser T, Haj-Yahya S, Belkin M, Rotenstreich Y. Novel technique: chromatic multifocal pupillometer for objective

- evaluating 76-point central 30 degree perimetry. Association For Research In Vision And Ophthalmology, USA 2014
- 24. Rotenstreich Y, Tzameret A, Kalish SE, Belkin M, Meir A, Treves AJ, Nagler A, **Sher I**. A novel platform for minimally invasive delivery of cellular therapy as a thin layer across the subretina for treatment of retinal degeneration. SPIE BiOS, USA 2015
  - 25. Rotenstreich Y, Chibel R, Haj-Yahia S, Achiron A, Mahajna M, Belkin M, **Sher, I.** The first prototype of chromatic pupillometer for objective perimetry in retinal degeneration patients. In SPIE BiOS, USA 2015
  - 26. Ben-Ner D, Chibel R, Mahajna MO, Sher I, Belkin M, Rotenstreich Y. Chromatic multifocal pupillometer for objective perimetry in patients with macular degeneration. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2015
  - 27. **Sher I**, Levy I, Corem-Salkmon E, Ziv O, Meir A, Treves AJ, Nagler A, Margel S, Rotenstreich Y. Bioactive magnetic near Infra-Red fluorescent core-shell iron oxide/human serum albumin nanoparticles for controlled release of growth factors for augmentation of human mesenchymal stem cell growth and differentiation. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2015
  - 28. Chibel R, **Sher I**, Mahajna OM, Belkin M, Rotenstreich Y. Chromatic multifocal pupillometer for objective perimetry in healthy subjects and patients with retinal dystrophies. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2015
  - 29. HajYahia S, Chibel R, Ben Ner D, **Sher I**, Belkin M, Rotenstreich Y. Pupillary responses of healthy subjects to chromatic light stimuli at incremental intensities at central and peripheral visual field locations. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2015
  - 30. Rotenstreich Y, Kalish S, Tzameret A, **Sher I**, Treves AJ, Nagler A, Belkin M. A novel platform for minimally invasive delivery of cells and therapeutics to the posterior segment. Israel Society For Vision& Eye Research 34rd Annual Meeting, Israel 2015
  - 31. Rotenstreich Y, Kalish S, Tzameret A, **Sher I**, Treves AJ, Nagler A, Belkin M. A novel platform for minimally invasive delivery of therapies to the Posterior Segment. Association For Research In Vision And Ophthalmology, USA 2015
  - 32. **Sher I**, Chibel R, Haj Yahia S, Ben-Ner D, Mahajna MO, Belkin M, Rotenstreich Y. Chromatic multifocal pupillometer for objective perimetry. Association For Research In Vision And Ophthalmology, USA 2015
  - 33. Rotenstreich Y, Chibel R, HajYahia S, Ben-Ner D, Mahajna MO, Belkin M, **Sher I**. Chromatic multifocal pupillometer for objective non-invasive diagnosis of ophthalmic pathologies in astronauts. 66th International Astronautical Congress, Israel 2015
  - 34. Rotenstreich Y, Tzameret A, Kalish S, Treves AJ, Nagler A, Belkin M, Moroz I, Rosner M, Levy I, Margel S, **Sher I**. A minimally invasive adjustable blunt injector for posterior segment delivery of drugs and cell therapy. ILOPT Germany 2015
  - 35. Rotenstreich Y, Ben-Ner D, Mahajna M, Chibel R, **Sher I**. Chromatic multifocal pupillometer for objective perimetry in patients with macular degeneration. SPIE BiOS, USA 2016
  - 36. Rotenstreich Y, Haj Yahia S, Chibel R, Ben-Ner D, **Sher I**. Pupillary responses of healthy subjects to chromatic light stimuli at incremental intensities at central and peripheral visual field locations. SPIE BiOS, USA 2016

37. Rotenstreich Y, Chibel R, Haj Yahia S, Ben-Ner D, Mahajna M, Achiron A, Berchenko Y, Oberman B, Kalter-Leibovici O, Freedman L, **Sher I**. Objective chromatic perimetry using a multifocal pupillometer. SPIE BiOS, USA 2016
38. **Sher I**, Levy N, Twito L, Tzameret A, Kotev-Emet S, Arie I, Buch S, Pitaru S, Savion N, Rotenstreich Y. Transplantation of Human Adult Oral Mucosa Stem Cells Ameliorates Retinal Degeneration in a Rat Model of Retinal Dystrophy. Israel Society For Vision& Eye Research 35rd Annual Meeting, Israel 2016
39. Edelshtain V, **Sher I**, Tzameret A, Harats D, Shaish A, Rotenstreich Y. Long-Term Treatment with 9-cis-beta-carotene Rich Alga Dunaliella Bardawil Inhibits Photoreceptor Degeneration in a Mouse Model of Retinoid Cycle Defect. Israel Society For Vision& Eye Research 35rd Annual Meeting, Israel 2016
40. Rotenstreich Y, Tzameret A, Kalish S, Bubis E, Moroz I, Rosner M, Levy I, Margel S, **Sher I**. A Minimally Invasive Adjustable-Depth Blunt Injector for Delivery of Pharmaceuticals into the Posterior Pole. Israel Society For Vision& Eye Research 35rd Annual Meeting, Israel 2016
41. Vishnevskia-Dai V, Zloto O, Loberman D, Fabian I, Twito L, **Sher I**, Rotenstreich Y, Solomon A, Verbin Lekovitz H, Rosner M. Evaluation of the Toxicity of Intravitreal Carboplatin Injection in a Rabbit Model. Israel Society For Vision& Eye Research 35rd Annual Meeting, Israel 2016
42. Ben-Ner D, **Sher I**, Ravona-Springer R, Beeri M, Rotenstreich Y. Chromatic Multifocal Pupillometer for Objective Early Diagnosis of Mild Cognitive Impairment. Israel Society For Vision& Eye Research 35rd Annual Meeting, Israel 2016
43. **Sher I**, Edelshtain V, Tzameret A, Harats D, Shaish A, Rotenstreich Y. Long-term treatment with 9-cis-β-carotene rich alga Dunaliella Bardawil inhibits photoreceptor degeneration in a mouse model of retinoid cycle defect. Association For Research In Vision And Ophthalmology, USA 2016
44. Rotenstreich Y, Ben-Ner D, Berchenko Y, Oberman B, Kalter-Leibovici O, Freedman L, Ravona-Springer R, Beeri M, **Sher I**. Chromatic multifocal pupillometer for objective diagnosis of neurodegeneration in the eye and the brain. Association For Research In Vision And Ophthalmology, USA 2016.
45. Carmeli, T; **Sher I**, Rotenstreich, Y. Repetitive magnetic stimulation protects corneal epithelium in a dry eye model in rabbits. Association For Research In Vision And Ophthalmology, USA 2016.
46. **Sher I**, Avni N, Tzameret A, Briliant Alexander, Carmeli T, Rotenstreich Y. Real-time imaging of rabbit cornea with acute dry eye by Spectral-Domain Optical Coherence Tomography. Association For Research In Vision And Ophthalmology, USA 2016.
47. Rotenstreich Y, Tzameret A, Briliant A, Twito L, Kotev-Emet S, Arie I, Buch S, Pitaru S, Savion N, **Sher I**. Correlation between SD-OCT, histology and retinal function longitudinal analyses in RCS rats treated with stem cells. Association For Research In Vision And Ophthalmology, USA 2016.
48. Rotenstreich Y, Ben-Ner D, Berchenko Y, Oberman B, Kalter-Leibovici O, Freedman L, Ravona-Springer R, Beeri M, **Sher I**. Chromatic multifocal pupillometer for objective diagnosis of neurodegeneration in the eye and the brain. 16th EURETINA Congress Copenhagen, Denmark 2016.

49. Rotenstreich Y, Ben-Ner D, Berchenko Y, Oberman B, Kalter-Leibovici O, Freedman L, **Sher I**. Chromatic multifocal pupillometer for objective perimetry in macular and retinal degeneration diseases. American Academy of Ophthalmology, USA 2016.
50. Rotenstreich Y, Tzameret A, Kalish S, Bubis E, Belkin M, Moroz I, Rosner M, Levy I, Mragel S, **Sher I**. A Novel Minimally Invasive Adjustable-Depth Blunt Injector for Delivery of Therapeutics into the Extravascular Spaces of the Choroid Israel Society For Vision& Eye Research 36rd Annual Meeting, Israel 2017
51. **Sher I**, Edelshtain V, Tzameret A, Ioffe M, Sayer A, Buzhansky, Gazit E, Rotenstreich Y. Synthetic 9-cis-beta-carotene Inhibits Photoreceptor Degeneration in Retinal Explants of rpe65rd12 Mouse Model of Retinoid Cycle. Israel Society For Vision& Eye Research 36rd Annual Meeting, Israel 2017
52. Bubis E, Tzameret A, **Sher I**, Rotenstreich Y, Evaluation of Retinal Degeneration in Royal College of Surgeons (RCS) Rats Using Blue Laser Fundus Autofluorescence and Optical Coherence Tomography. Israel Society For Vision& Eye Research 36rd Annual Meeting, Israel 2017
53. Ben Ner D, **Sher I**, Gurevich M, Chibel R, Mhajna MO, Skaat A, Weinerman Z, Achiron A, Sharvit-Ginon I, Ravona-Springer R, Beeri M, Pras E, Newman H, Levy H, Khateb S, Banin E, Sharon D, Rotenstreich Y. Objective Assessment of Visual Acuity and Retinal Function in Best Vitelliform Macular Dystrophy Patients Using Chromatic Multifocal Pupilloperimetry. Israel Society For Vision& Eye Research 36rd Annual Meeting, Israel 2017
54. Vishnevskia-Dai V, Zloto O, Loberman D, Fabian ID, Twito L, **Sher I**, Rotenstreich Y , Solomon A, Verbin-Lekovitz H, Rosner M. The Mechanism of the Toxicity of Intravitreal Carboplatin Injection in a Rabbit Model. Israel Society For Vision& Eye Research 36rd Annual Meeting, Israel 2017
55. Rotenstreich Y, Tzameret A, Kalish S, Bubis E, Belkin M, Moroz I, Rosner M, Levy I, Margel S, **Sher I**. A Novel Minimally Invasive Adjustable-Depth Blunt Injector for Delivery of Therapeutics into the Extravascular Spaces of the Choroid Association For Research In Vision And Ophthalmology, USA 2017.
56. **Sher I**, Gurevich M, Skaat A, Rotenstreich Y. Chromatic multifocal pupilloperimetry for objective perimetry in retinal and optic nerve diseases Association For Research In Vision And Ophthalmology, USA 2017.

## PATENTS

1. US Provisional Patent Application 30685/13 –filed June 2013, Device and method for adjusting permeability of the cornea
2. International Application No. PCT/US2017/013122 filed January 12, 2017 entitled system and method for performing objective perimetry and diagnosis of patients with retinitis pigmentosa and other ocular diseases – claiming priority to U.S. Provisional Application Serial No. 62/277,520

## **TEACHING**

<b><u>Year</u></b>	<b><u>Course</u></b>	<b><u>Institute</u></b>
1996-2004	Teaching Assistant; Department of Biology Courses taught [# of semesters, if taught repeatedly]: <ul style="list-style-type: none"><li>• Biochemistry [2]</li><li>• Advanced Molecular Biology [3]</li><li>• Cell Biology laboratory</li><li>• Genetic engineering for high school teachers</li></ul>	Technion- Israel Institute of Technology , Haifa, Israel
2016-	Methods In Advanced Ophthalmic Research , for Graduate students- lecturer	Tel Aviv University