

# Mohammad Faisal Jamal Khan, PhD



## Education

University of Ferrara, Italy January 2014-December 2016  
PhD Student, Molecular Medicine and Pharmacology.  
Title: Genetic and Histological study of Orofacial Cleft: Influence of gender in disease susceptibility.

Hemwati Nandan Bhuguna Garhwal University, India August 2005 – October 2007  
Master of Science (M.Sc.), Biochemistry.  
Dissertation Title: Impact of soluble cytokine evaluation on the graft outcome in renal transplant patients.

University of Pune, India July 2002 – June 2005  
Bachelor of Science (B.Sc.), Biotechnology.  
Dissertation Title: Effect of Mycorrhiza on growth and bio-chemistry of *Mentha piperata*.

## Work Experience

All India Institute of Medical Sciences, India August 2013 – December 2013  
Researcher, Dept. of Anatomy.  
Project 1. Transmission electron microscopic study to mark the effect of contact lens solution on corneal collagen fibril and proteoglycan.

King Saud University, Saudi Arabia January 2009 – July 2013  
Lecturer/Researcher, Dept. of Optometry and Vision Sciences.  
Project 1. Ultrastructure of camel cornea.  
Project 2. Immuno-localization of proteoglycan in camel cornea  
Project 3. Swelling studies in camel and bovine cornea.  
Project 4. Effect of multipurpose solutions on hydrogel lens.

## Publications

Khan MFJ, Abelli L, Nag TC, Autelitano L, Mossey PA, Rubini M (2017). Speculating changes in muscle diameter between lateral and medial side of Cleft lip using an image processing tool. (Submitted. *Cleft Palate-Craniofacial Journal*, Ref#:17-011)

Khan MFJ, Nag TC, Igathinathane C, Osuagwu UL, Rubini M (2015). A new method of detecting changes in corneal health in response to toxic insults. *Micron*. 78:45-53. (<http://www.ncbi.nlm.nih.gov/pubmed/26312735>)

Ogbuehi KC, Khan MFJ, Alanazi S, AlMubrad T, Osuagwu UL. (2014). Transmittance properties of contact lens multipurpose solutions and their effects on a hydrogel lens. *Annual Research & Review in Biology*. 4(15) 2484-2500. (<http://www.sciencedomain.org/abstract.php?iid=497&cid=32&aid=4355>)

AlMubrad T, Khan MFJ, Akhtar S. (2010). Swelling studies of camel and bovine corneal stroma. *Clin Ophthalmol*. 4:1053-106. (<http://www.ncbi.nlm.nih.gov/pubmed/20922042>)

## Conferences

Khan MFJ. (2016). Optimising the Cleft case-parent trios DNA bio-bank from EU and advantaged gene-environment interaction studies. EUROcleftNet-2016, Dundee, U.K.

Khan MFJ, R. Bassi Andreasi, K.A. Pisani, L. Autelitano, R. Brusati, G. Garattini, V. Aiello, P. Franceschelli, P. Mossey, M. Rubini. (2015). Opposite Effect in males and females of a deletion polymorphism in TGFA gene in determining the risk of non-syndromic Orofacial Cleft. SIGU-2015, Rimini, Italy

Rubini M, Roversi Bonomo E, Aiello V, Khan MFJ, Franceschelli P, Andreasi Bassi R, Farina I, Galuppi E, M. Govoni. (2015). Gender-dependent association between HLA-G 14b insertion/deletion polymorphism and rheumatoid arthritis in Italian patient. European League against Rheumatism (EULAR-2015), Rome, Italy.

Akhtar S, Khan MFJ, Ahmed M, AlMubrad T. (2012). Ultrastructural changes in hydrated camel corneal stroma. World Ophthalmology conference (WOC-2012), Abu Dhabi, United Arab Emirates (UAE).

Akhtar S, Khan MFJ, Ahmed M, AlMubrad T. (2011). Effect of swelling on the ultrastructure of camel corneal stroma. European Association for Vision and Eye Research (EVER), Crete, Greece.

AlMubrad T, Khan MFJ, Akhtar S. (2010). Ultrastructural features of camel cornea. European Association for Vision and Eye Research (EVER), Crete, Greece.

Khan MFJ, AlMubrad T, Akhtar S. (2010). Hydration and rehydration in camel and bovine cornea. European Association for Vision and Eye Research (EVER), Crete, Greece.

## Techniques Known

Immunology:

- HLA typing – HLA AB and DRB for kidney transplant

#### Molecular Biology and Biochemistry:

- Isolation and quantification of DNA from blood and tissues
- Isolation of Peripheral blood mononuclear cells (PBMC)
- DNA and Protein gel electrophoresis
- Silver staining
- Paper and Thin-layer chromatography
- DNA and Tissue Banking
- UV-Visible Spectroscopy - Contact lens and Cornea
- Real time Polymerase chain reaction

#### Histology:

- Tissue processing and staining for light microscopy (Paraffin and Cryo-embedding)
- Tissue processing & ultrathin sectioning

#### Tissue Culture:

- Primary culture - Chorionic villi from normal and abortive pregnancy

#### Statistical Analysis:

- Graph-pad
- STATA

#### Image Processing:

Image J

#### Computer:

- Extensive knowledge of MS- Office

- ELISA - Th1 and Th2 cytokines

(RT-PCR) - Allelic discrimination

- Quantitative Polymerase chain reaction (qPCR) - Cytomegalovirus (CMV) and microchimerism
- Chromosome spreading and banding - Chorionic villi and lip
- Fluorescent In-Situ hybridization (FISH) - Chorionic villi, decidua and lip
- Pyro-sequencing - DNA methylation
- Western Blotting - Corneal Proteoglycan

for Electron microscopy

- Immunohistochemistry - Corneal tissue
- Expertise in Tecnai G<sup>2</sup> HR Transmission electron microscope

- Primary culture - Cleft lip tissue

- SPSS

#### Honours and Awards

ESF-EuroCleftNet-Exchange Visiting Researcher  
University of Ferrara, Ferrara, Italy

January 2016–June 2016

Project: DNA and Tissue Biobanking for Ecogenetic and Epigenetic of Orofacial Clefts.

ESF-EuroCleftNet-Exchange Visiting Researcher  
University of Ferrara, Ferrara, Italy

April 2015–September 2015

Project: DNA Biobanking and Ecogenetics of Orofacial Clefts.

## Referees

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Biosystems Engineering  
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**Il sottoscritto acconsente, ai sensi del D.Lgs. 30/06/2003 n.196, al trattamento dei propri dati personali.**