

CURRICULUM VITAE



Name: Hafiza Fakhera Ikram

Place of Birth: Kasur, Pakistan

Languages: English, Urdu & Basic German

Mobile: 0092-315-4220750

Email: fakhera.ikram@cuilahore.edu.pk
fakhera.ikram@gmail.com

EXPERIENCE

July 2023-Present Associate Professor (Tenured)

Interdisciplinary Research Centre in Biomedical Material (IRCBM), COMSATS University Islamabad, Lahore, Pakistan

**October 2016-
June 2023** Assistant Professor (TTS)

Interdisciplinary Research Centre in Biomedical Material (IRCBM), COMSATS University Islamabad, Lahore, Pakistan

**January 2016-
October 2016** Assistant Professor (IPFP)

Centre for Applied Molecular Biology (CAMB), University of the Punjab, Lahore, Pakistan

2015-2016 Post-Doctorate

Department of Pediatric Oncology and Hematology, University Children`s Hospital, Cologne, Germany

EDUCATIONAL BACKGROUND

2010-2014 Ph.D. (Molecular Biology of Neuroblastoma) Magna Cum Laude (Very Good)

2008-2010 M.Phil. (Molecular Biology) Overall Percentage 75.85%

2003-2007 B.Sc. (Hons.) Zoology Overall Percentage: 81.23%

1999-2001 Fellow of Science (Pre-Medical group) Overall Percentage: 64.09%

PATENT

- New method for decellularization of umbilical cord and preparation of novel hydrogels and thereof. Muhammad Khaqan Zia , Tayyaba Bari, Hafiza Fakhera Ikram. **Submitted** to Intellectual Property of Pakistan. Application no. 620/2024.

RESEARCH GRANTS

- “A New Therapeutic Approach for Osteoarthritis: Use of 3D Printed Bioscaffolds from Decellularized Umbilical Cord for Cartilage Regeneration“ at Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS University Islamabad, Lahore Campus, Off Raiwind Road 1.5 Km, defense road, Lahore, Pakistan. NRPU-Higher Education Commission (HEC)-11.19 Million PKR. **PI (on-going)**
- “Development of smart injectable bioactive glass for potential application in periodontal infection and infrabony defects“ at Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS University Islamabad, Lahore Campus, Off Raiwind Road 1.5 Km, defense road, Lahore, Pakistan. Higher Education Commission (HEC), Pakistan. 11.9 Million PKR. **Co-PI (Completed)**
- “Use Of RNA Nanopartilces For The Regression Of Cancer” at Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS University Islamabad, Lahore Campus, Off Raiwind Road 1.5 Km, defense road, Lahore, Pakistan. 3.5 Million PKR. **PSF (on-going)**
- Biological and related sciences, Education, inter-disciplinary programmes Medical diagnostic and treatment technology. Erasmus Exchange Programme (Partner Country: Turkey)-12.400,00 EUR **(Completed)**
- “Functional Characterization of Fusion Transcripts in Neuroblastoma Cell lines” at Centre for Applied Molecular Biology (CAMB), University of the Punjab, Lahore, Pakistan. Start-up Research Grant Programme (SRGP). Higher Education Commission (HEC), Pakistan. March-December 2016, 0.5 Million PKR. **PI (Completed)**
- Developing Framework for Tailored Biology Through Tailored Materials Chemistry Oxide Nanoparticles-Induced Cell Death in Cancer Cells” at Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Off Raiwind Road 1.5 Km, defense road, Lahore, Pakistan. CIIT Research Grant Programme. 0.3 Million PKR. **PI (Completed)**

PUBLICATIONS

1. **Fakhera Ikram**, Sandra Ackermann, Yvonne Kahlert, Ruth Volland, Frederik Roels, Anne Engesser, Falk Hertwig, Hayriye Kocak, Barbara Hero, Daniel Dreidax, Kai-Oliver Henrich, Frank Berthold, Peter Nürnberg, Frank Westermann and Matthias Fischer. Transcription factor activating protein 2 beta (TFAP2B) mediates noradrenergic neuronal differentiation in neuroblastoma. Mol Oncol. 2015 Nov 7. pii: S1574-7891(15)00198-2. doi: 10.1016/j.molonc.2015.10.020. PMID: 26598443. **(IF: 6.5)**
2. Martin Peifer, Falk Hertwig, Frederik Roels, Daniel Dreidax, Moritz Gartlgruber, Roopika Menon, Andrea Krämer, Justin L. Roncaioli, Frederik Sand, Johannes M. Heuckmann, **Fakhera Ikram**, Rene Schmidt, Sandra Ackermann, Anne Engesser, Yvonne Kahlert, Wenzel Vogel, Janine Altmüller, Peter Nürnberg, Jean Thierry-Mieg, Danielle Thierry-Mieg, Aruljothi Mariappan, Stefanie Heynck, Erika Mariotti, Kai-Oliver Henrich, Christian

- Gloeckner, Graziella Bosco, Ivo Leuschner, Michal R. Schweiger, Larissa Savelyeva, Simon C. Watkins, Chunxuan Shao, Emma Bell, Thomas Höfer, Viktor Achter, Ulrich Lang, Jessica Theissen, Ruth Volland, Maral Saadati, Angelika Eggert, Bram de Wilde, Frank Berthold, Zhiyu Peng, Chen Zhao, Leming Shi, Monika Ortmann, Reinhard Büttner, Sven Perner, Barbara Hero, Alexander Schramm, Johannes H. Schulte, Carl Herrmann, Roderick J. O'Sullivan, Frank Westermann, Roman K. Thomas & Matthias Fischer. Telomerase activation by genomic rearrangements in high-risk neuroblastoma. *Nature* (2015) Oct 29;526(7575):700-4. doi: 10.1038/nature14980. Epub 2015 Oct 14. (IF: 42.77)
3. Ayşenur Topsakal, Muhammet Uzun, Gaye Ugar, Aslıhan Özcan, Esra Altun, F. Nüzhet Oktar, **Fakhera Ikram**, Oğuzhan Gündüz, HilalTürkoğlu Şasmazel, Ozan Özkan. Development of Amoxicillin-Loaded Electrospun Polyurethane/Chitosan/ β -Tricalcium Phosphate Scaffold for Bone Tissue Regeneration. *IEEE Transactions on NanoBioscience*. 2018 Sep 9. Online ISSN: 1558-2639. Print ISSN: 1536-1241. (IF: 2.79)
 4. Asif Ali, Farasat Iqbal, Akhlaq Ahmad, **Fakhera Ikram**, Anaum Nawaz, Aqif Anwar Chaudhry, Saadat Anwar Siddiqi, Ihtesham ur Rehman. Hydrothermal deposition of high strength calcium phosphate coatings on magnesium alloy for biomedical applications. *Surface and Coatings Technology*. Volume 357, 2019 Jan 15, Pages 716-727. DOI: 10.1016/j.surfcoat.2018.09.016 (IF: 3.78)
 5. Sandra Ackermann, Maria Cartolano, Barbara Hero, Anne Welte, Yvonne Kahlert, Andrea Roderwieser, Christoph Bartenhagen, Esther Walter, Judith Gecht, Laura Kerschke, Ruth Volland, Roopika Menon, Johannes M. Heuckmann, Moritz Gartlgruber, Sabine Hartlieb, Kai-Oliver Henrich, Konstantin Okonechnikov, Janine Altmüller, Peter Nürnberg, Steve Lefever, Bram de Wilde, Frederik Sand, **Fakhera Ikram**, Carolina Rosswog, Janina Fischer, Jessica Theissen, Falk Hertwig, Aatur D. Singhi, Thorsten Simon, Wenzel Vogel, Sven Perner, Barbara Krug, Matthias Schmidt, Sven Rahmann, Viktor Achter, Ulrich Lang, Christian Vokuhl, Monika Ortmann, Reinhard Büttner, Angelika Eggert, Frank Speleman, Roderick J. O'Sullivan, Roman K. Thomas, Frank Berthold, Jo Vandesompele, Alexander Schramm, Frank Westermann, Johannes H. Schulte, Martin Peifer, Matthias Fischer. A mechanistic classification of clinical phenotypes in neuroblastoma. *Science*. 2018 Dec 07. Vol. 362, Issue 6419, pp. 1165-1170. DOI: 10.1126/science.aat6768.(IF: 41.8).
 6. Mehmet Onur Aydogdu, Ebru Toksoy Oner, Nazmi Ekren, Gokce Erdemir, Serap Erdem Kuruca, Esra Yuca Muge, Sennaroglu Bostan, Mehmet S.Eroglu, **Fakhera Ikram**, Muhammet Uzun, OguzhanGunduz. Comparative characterization of the hydrogel added PLA/ β -TCP scaffolds produced by 3D bioprinting. *Bioprinting*. 2019 March 15. Vol. 13, doi.org/10.1016/j.bprint.2019.e00046 (IF: 5.9)
 7. Hamad Khalid, Saba Zahid, **Fakhera Ikram**, Haffsah Iqbal, Muhammad Samie, Lubna Shahzadi, Asma Tufail Shah, Muhammad Yar, Aqif Anwar Chaudhry, Sana Awan, Ather Farooq Khan, Ihtesham Rehman. Bi-layered α -tocopherol acetate loaded membranes for potential wound healing and skin regeneration. *Materials Science & Engineering C*. 2019 March 22. (IF: 5.88)
 8. Anam Shahzadi, **Fakhera Ikram**, Riaz Ul Haq Subhani, Arsalan Ahmed, Anila Asif, Nighat Fatima, Aqif Anwar Chaudhry and Yong Hu. Acid susceptible polymeric stealthy nanoparticles for improved anticancer drug delivery. *International Journal of Polymeric Materials and Polymeric Biomaterials*. 30 October 2019 Vol. 68, Issue 18. (https://doi.org/10.1080/00914037.2019.1683556) (IF: 1.98)
 9. Asma Tufail Shah, Saba Zahid, **Fakhera Ikram**, Muhammad Maqbool, Aqif Anwar Chaudhry, Muhammad Imran Rahim, Franziska Schmidt, Oliver Goerke, Abdul Samad Khan, Ihtesham ur Rehman. Tri-layered functionally graded membrane for potential

- application in periodontal regeneration. *Materials Science and Engineering: C*. October 2019. Vol. 103. (<https://doi.org/10.1016/j.msec.2019.109812>). (IF: 5.0)
10. Yunis Moukbil, Busra Isindag, Velican Gayir, Burak Ozbek, Merve Erginer Haskoylu, Ebru Toksoy Oner, Faik NuzhetOktar, **Fakhera Ikram**, Mustafa Sengor, Oguzhan Gunduz. 3D Printed Bioactive Composite Scaffolds for Bone Tissue Engineering. *Bioprinting*. October 2019. Vol. 17 (<https://doi.org/10.1016/j.bprint.2019.e00064>) (IF:5.9)
 11. Muhammad Samie, Muhammad Arfat Yameen, **Fakhera Ikram**, Haffsah Iqbal, Aqif Anwar Chaudhry, Ihtesham ur Rehman. Ather Farooq Khan. Fabrication of dual drug loaded bilayered chitosan based composite scaffolds as osteochondral substitutes and evaluation of in vitro cell response using the MC3T3 pre-osteoblast cell line. *Cellulose*. December 2019. Vol. 27. (<https://doi.org/10.1007/s10570-019-02915-x>) (IF: 3.9)
 12. Arsalan Ahmed, Shumaila Sarwar, Yong Hu, Muhammad Usman, Muhammad Farrukh Nisar, **Fakhera Ikram**, Anila Asif, Saeed Ur Rahman, Aqif Anwar Chaudhry Ihtasham Ur Rehman. Surface-modified polymeric nanoparticles for drug delivery to cancer cells. Pages 1-24 (<https://doi.org/10.1080/17425247.2020.1822321>). (IF:4.8)
 13. Asif Ali, Fakhera Ikram, Farasat Iqbal, Hira Fatima, Azra Mehmood, Maruf Yinka Kolawole, Aqif Anwar Chaudhry, Saadat Anwar Siddiqi and Ihtesham Ur Rehman. Improving the *in vitro* Degradation, Mechanical and Biological Properties of AZ91-3Ca Mg Alloy via Hydrothermal Calcium Phosphate Coatings. *Frontiers in Materials*. October 13, 2021. Vol 8. <https://doi.org/10.3389/fmats.2021.715104> (IF: 3.2)
 14. Farasat Iqbal, Asif Ali, Mahnoor Naveed, **Fakhera Ikram** and Hira Fatima. Hydrothermal deposition of high strength biocompatible magnesium phosphate coating through in situ conversion of AZ91D-3Ca magnesium substrate. *Surface and Coatings Technology*. Volume 457, 25 March 2023, 129301. <https://doi.org/10.1016/j.surfcoat.2023.129301> (IF: 4.158)
 15. Ece Guler, Humeyra Betul Yekeler, Gita Parviz, Saliha Aydin, Asima Asghar, Murat Dogan, Fakhera Ikram*, Deepak M Kalaskar, Muhammet Emin Cam*. Vitamin B12-loaded chitosan-based nanoparticle-embedded polymeric nanofibers for sublingual and transdermal applications: Two alternative application routes for Vitamin B12. *International Journal of Biological Macromolecules*. 6th December 2023. DOI: 10.1016/j.ijbiomac.2023.128635 (IF:8.0)
 16. Saira Sajjad, Oliver Görke, Fatma Z Kocak, Muhammad Shumail, Saimoon Tehseen, Saba Zahid, Fakhera Ikram, Muhammad Yar, Abdul Samad Khan, Asma Tufail Shah. Acetanilide-loaded injectable hydrogels with enhanced bioactivity and biocompatibility for potential treatment of periodontitis. *Journal of Applied Polymer Science*, John Wiley & Sons, Inc., 141, e55200, 09 February 2024 (IF:3.0)
 17. Ece Guler, Humeyra Betul Yekeler, Burcu Uner, Murat Dogan, Asima Asghar, Fakhera Ikram, Yusufhan Yazir, Oguzhan Gunduz, Deepak M Kalaskar,* and Muhammet Emin Cam. In Vitro Neuroprotective Effect Evaluation of Donepezil-Loaded PLGA Nanoparticles-Embedded PVA/PEG Nanofibers on SH-SY5Y Cells and AP-APP Plasmid Related Alzheimer Cell Line Model. *Macromolecular Materials and Engineering*. 2024. doi: 10.1002/mame.202400160 (IF:4.40)

ABSTRACT PUBLISHED

- **Ikram, F.**, Ackermann, S., Roels, F., Volland, R., Hero, B., Hertwig, F., Kocak, H., Dreidax, D., Henrich, K.O., Berthold, F., Nurnberg, P., Westermann, F., and Fischer, M. (2014). Transcription factor activating protein 2 beta (TFAP2B) mediates neuronal differentiation in neuroblastoma. *Eur J Cancer* 50 6, 130-131. (IF: 4.5)
- **Fakhera Ikram**, Lynnette Fernández-Cuesta, Frederik Roels, Falk Hertwig, Martin Peifer, Ruth Volland, Yvonne Kahlert, Anne Engesser, Sven lindner Barbara Hero, Frank

- Berthold, Wenqian Zhang, Zhiyu Peng, Johannes Schulte Leming Shi, Roman K. Thomas and Matthias Fischer (2014). The landscape of fusion transcripts in neuroblastoma. (www.anr2014.com/.../ANR_2014_Information_Book_2014-05-08.pdf).
- **Fakhera Ikram**, Sandra Ackermann, Frederik Roels, Barbara Hero, Hayriye Kocak, Ruth Volland, Matthias Fischer. The transcription factor activating protein 2 beta (TFAP2B) mediates neuronal differentiation in neuroblastoma cells. (http://www.eacr.org/cancer-genomics2013/downloads/Cancer%20Genomics%20programme%20book_FULL.pdf).
 - **F Ikram**, S Ackermann, F Roels, H Kocak, R Volland, M Fischer. The transcription factor activating protein 2 beta (TFAP2B) mediates neuronal differentiation in neuroblastoma cells. *Klin Padiatr* 2013; 225 - A27. DOI: 10.1055/s-0033-1343644. (IF: 1.06)
 - A Krämer · S Ackermann · F Roels · H Kocak · F Hertwig · Y Kahlert · A Engesser · E Arnz · **F Ikram** · M Peifer · R Thomas · JH Schulte · M Fischer. Establishing a model for functional characterisation of somatically mutated genes in neuroblastoma. *Klin Padiatr* 2013; DOI: 10.1055/s-0034-1374848. (IF: 1.06)
 - E Arnz · F Hertwig · A Krämer · **F Ikram** · F Roels · H Kocak · A Engesser · R Thomas · M Peifer · S Ackermann · M Fischer. Fibroblast growth factor receptors as therapeutic targets in neuroblastoma. *Klin Padiatr*; DOI: 10.1055/s-0034-1374843. (IF:1.06)

SCIENTIFIC MEETINGS PARTICIPATED

- Organizer in “8th International Symposium on Biomedical Materials ISBM 2024” Lahore, Pakistan
- Invited speaker at “BIOMED 2023-TR“, October 20-22, 2023, Izmir, AliAga, Turkey
- Organization and participation in “7th International Symposium on Biomedical Materials ISBM 2019” Lahore, Pakistan
- Oral presentation in “Symposium on Stem Cells and Cancer Biology” University of Lahore, March 14th, 2019, Lahore, Pakistan
- Oral presentation in “Science at the Edge Symposia-Regenerative Medicine” Sharif Medical City Hospital March 26th 2018, Lahore, Pakistan
- Organization and participation in one day event on “Workshop and Launch of Bone Repair and Regeneration Network (BoRRN)” November 30th 2018” Lahore, Pakistan
- Organization and participation in “6th International Symposium on Biomedical Materials (ISBM 2017)” Lahore, Pakistan
- Organization and participation in “5th International Symposium on Biomedical Materials (ISBM 2016)” Lahore, Pakistan
- Oral Presentation in parallel session in “Advances in Neuroblastoma Research 2016” June 19-23, 2016, Cairns, Australia
- Participation in “8th International Cancer Surgery Conference” February 4-5, 2016, Lahore, Pakistan
- Oral presentation in “International Symposium on Advances in Molecular Biology of Plants and Health Sciences & CEMB Alumni Meet” Decmber 29-31, 2015, Lahore, Pakistan
- Invited speaker at “86. Wissenschaftliche Halbjahrestagung der GPOH e. V.,” November 20-21, 2015, Frankfurt am Main, Germany
- Poster presentation in “Genes and Cancer 2015” April 13-15, 2015 in Cambridge, UK
- Oral Presentation in plenary session in “Advances in Neuroblastoma Research 2014” May 13-16 in Cologne, Germany

- Oral Presentation in parallel session in “Advances in Neuroblastoma Research 2014” May 13-16 in Cologne, Germany
- Invited Speaker at “1st Basic and Translational Research Retreat” November 08-09 2013, Wiehl, Germany
- Participation in “Annual Meeting AGD 2013, The New Age of Comprehensive Testing” October 11-12 in Potsdam, Germany
- Organization and participation in “Ernst Klenk Symposium 2013” Cologne, Germany
- Poster presentation in “EACR Cancer Genomics 2013” , June 25-28, Cambridge, UK
- Oral presentation in “26. Jahrestagung der Kind-Philipp-Stiftung für Leukämieforschung 2013” June 05-08, Wilsede, Germany
- “CMMC annual retreat 25-26 January 2013” Nümbrecht, Germany
- Poster presentation in “Ernst Klenk Symposium 2012” Cologne, Germany
- Poster presentation in “Cross Roads in Biology meeting 2012” February 9-10, Cologne, Germany
- “CMMC annual retreat 2012” January 27-28, Nümbrecht, Germany
- “CMMC annual retreat 2011” January 2011, Nümbrecht, Germany
- “4th Mildred Scheel Cancer Conference 2010”, May 19-21, Steigenberger Grandhotel Petersberg Königswinter, Germany
- “1st Biennial Cancer Conference 2010” March 24-26, Bonn, Germany
- “CCG Genomics Day 2010” March 19th, Cologne, Germany
- Participation in Cologne Cancer Club on regular basis organized by SFB 832

HONORS AND AWARDS

- Erasmus Mobility Grant award together with Marmara University, Istanbul, Turkey from 2020-2023.
- Lerner Family Foundation Early Career Travel award for the “Advances in Neuroblastoma 2016 Meeting” , held June 19-23, 2016 in Cairns, Queensland, Australia\
- Best oral presentation award in the category of Basic Science in Advances in neuroblastoma research meeting” held May 13-16, 2014 in Cologne, Germany
- Young Investigator Travel Fellowship Award for the Symposia on Cancer Research 2013, “Genomic Medicine”, held October 4-5, 2013 in Houston, Texas, USA
- Travel Award to participate in EACR Cancer Genomics 2013 in Cambridge, UK
- Selected by Higher Education Commission, Pakistan- Deutscher Akademischer Austausch Dienst (HEC-DAAD) for a fully funded PhD thesis in Germany (Time duration: October 2009 to October 2013)
- Higher Education Commission, Pakistan- Deutscher Akademischer Austausch Dienst (HEC-DAAD) Stipendium für Deutsch Sprache Ausbildung (August and September 2009: Two months duration in Cologne, Germany)
- Academic Excellence fellowship for master studies in molecular biology by Higher Education Commission of Pakistan (from 2007 to 2009)

REFERENCES

The following persons have kindly agreed to provide references as and when requested

Prof. Dr. Matthias Fischer

Universitätskinderklinik Köln
Abteilung Kinderonkologie und -hämatologie
Kerpener Str. 62 50924 Köln
E-mail: matthias.fischer@uk-koeln.de

Prof. Dr. Anila Asif

Interdisciplinary Research Centre in Biomedical Materials
COMSATS University Islamabad, Lahore Campus
Defence Road, Lahore, Pakistan
E-mail: anilaasif@cuilahore.edu.pk

Dr. Aqif Anwar Chaudhry

Interdisciplinary Research Centre in Biomedical Materials
COMSATS University Islamabad, Lahore Campus
Defence Road, Lahore, Pakistan
E-mail: aqifanwar@cuilahore.edu.pk