

AND HE IS WITH YOU WHEREVER YOU ARE

Al Quran[57:4]

Letter From The Editor



Dear Readers.

Future Vision Pakistan presents you the second edition with the aim to educate our researchers and students about selecting the right supervisor and updating yourself with the online mode of education. I hope this edition will be quite fruitful for you all. Again, it is our pleasure to give you the content you deserve. We are working hard day and night to cater to your content needs. May this issue be fruitful to each and everyone. Happy reading!

Sincerely Yours,

Dr. Rao Kashif

Editor In Chief (Future Vision)
CEO, Managing Director at
Center To Advance Level Research & Development

Visiting Assistant Professor

Department of IT/CS

MNS University of Agriculture Multan

Future is vision driven



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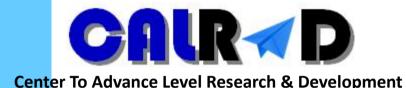
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Research Support Services

Pakistan First Virtual Research Support Center



Centre To Advance Level Research & Development is Pakistan's first virtual research support Center. Centre was started in 2019 by Dr. Rao Kashif & Dr. Faiza with the aim to promote the Research & Development culture in Pakistan universities & colleges.

CALRD is currently providing services in following two areas

- (1) Research Editing & Publishing
 - Journal Recommendation
 - Publishing ready manuscript
 - Formating Figures & Tables
- (2) Research Promotion
 - Video Abstract
 - Visual graphic for your research
 - Research Summaries



Seminars & Webinars



Recording available on our Youtube channel:

https://youtu.be/Mo_JkkQjROo

Pinopode in Women's Reproductive Health

Dr. Faiza Xiamen University

Successful pregnancy in humans relies on a series of unique events, including embryo implantation, decidualization, placentation, and parturition. Each of these events is crucial to advance to the next step in pregnancy. Implantation requires an intimate dialogue between the embryo and a receptive endometrium orchestrated by molecular and physiological events. Human implantation is a process that requires actual events such as apposition, adhesion/attachment, invasion, and immune regulation. These sequential steps lead to a successful pregnancy.

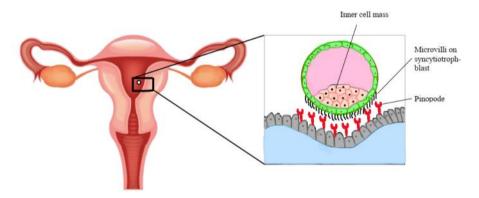


Figure: Uterus lining showing pinopodes

Successful embryo implantation requires functional communication between a blastocyst and a receptive endometrium during a brief period known as the window of implantation. During the implantation window, the blastocyst can attach to the endometrial epithelial cells and invade the endometrial stroma and vasculature. This process can only occur when the endometrium is receptive. During the secretory phase, a receptive endometrium is characterized by microvilli's appearance on the apical surface of luminal epithelial cells called pinopodes.

Future Vision Pakistan

On average, pinopodes last for 1 or 2 days, usually during days 20 and 21 of the menstrual cycle. However, there are up to 5 days of variation between women in the timing of appearance. Detection of pinopodes in the human endometrium is proposed as a clinical marker to assess uterine receptivity. During the window of implantation, the endometrium expresses several genes that enable implantation to occur. The uterus undergoes extensive tissue remodeling that shares similarities with a micrometastasis process. A substantial area of recent research interest has focused on identifying between hormonal and other factors and pinopode correlations development. Indeed, several studies have emphasized the dependence of pinopode formation on hormonal control by the two most studied hormone contributors, estrogen and progesterone. The majority of available literature has described and analyzed the density of pinopodes without sub classifying pinopodes into their developmental stages. Previous research has indicated that pinopode morphology, rather than absolute numbers, may be more relevant to endometrial receptivity. This field has a lot more to be studied yet. Research in this area will broaden the understanding of factors that mediate implantation failure and encounter poor pregnancy results in women experiencing natural conception or IVF treatments.

References:

- Quinn, K. E., Matson, B. C., Wetendorf, M., & Caron, K. M. (2020). Pinopodes: Recent advancements, current perspectives, and future directions. In Molecular and Cellular Endocrinology. https://doi.org/10.1016/j.mce.2019.110644
- 2. Nikas, G.; Makrigiannakis, A. Endometrial pinopodes and uterine receptivity. Ann. N. Y. Acad. Sci. 2003, 997, 120–123.
- Nikas, G.; Aghajanova, L. Endometrial pinopodes: Some more understanding on human implantation? Reprod. BioMedicine Online 2002, 4, 18–23.
- Stavreus-Evers, A.; Nikas, G.; Sahlin, L.; Eriksson, H.; Landgren, B.M. Formation of pinopodes in human endometrium is associated with the concentrations of progesterone and progesterone receptors. Fertil. Steril. 2001, 76, 782–791.
- 5. Nikas, G. Endometrial receptivity: Changes in cell-surface morphology. Semin. Reprod. Med. 2000, 18, 229–235.
- 6. Psychoyos, A. Uterine receptivity for nidation. Ann. N. Y. Acad. Sci. 1986, 476, 36–42.







Why Students Avoiding Online Mode of Study?

Published 5th Feb 2021



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globe. It started with online certifications, and now you can enroll for online degrees such as BS, MS, and even Ph.D. The idea behind the online mode of education was to provide facilities to those students who could not afford to travel abroad to complete their education. Universities and education systems of all developed and developing nations accept this type of education mode and encourage different organizations for the promotion of online education. High-tech companies have introduced applications to support online education and taken it one step further from recorded lectures to live lectures. By using these applications now, there is no difference between students sitting in a class and ones attending lectures from home. Now the question is, if the online mode of education is so fruitful, why it appears as a disaster in Pakistan? Why are students not satisfied? Is this because of our incompetent and outdated education system or lack of online teaching skills in our teachers? Or is it due to weak education policies?

Since 2014, there has been a dramatic increase in online education around the

During the first and second lockdown periods, I did some research in this area. After listening to many students and teachers and observing our education system, I concluded that online education is a disaster in Pakistan due to our outdated education system. More than 75 to 80 percent of online students in Pakistan are from the undergraduate level. These are the students who have come from our traditional matric and HSC system. Our education system till the college level is based on cramming. The better you are at memorizing, the higher score you will obtain in both matric and HSC. This is the reason you will never find the toppers of matric and HSC contributing to any international research and development. When students from such a system come to the university, they will always be asking their teachers to provide them with guess papers and important questions for semester exams.

Giving guess papers, not including the mid-term syllabus in the final semester exam, and shortening the syllabus due to the pressure from students are clear signs that the primary purpose of a student is just to pass the exam with a high CGPA without learning anything. The entire education system, teachers, students, and universities are contributing to this damage. Students lack self-study, and that's the reason when content is given in online classes, they fail to understand the concept. Therefore, they want the university to teach them like they are taught in high school.

Universities all across the world require at least 50 percent of self-study. Our students need to follow the same thing. Teachers should give them content and guide them on how to learn about the topics by self-studying. Spoon feeding at the university level will always harm our education system. Universities should encourage open-book exams. Assignments, quizzes, and exam papers should always be conceptual. Students should ask the course-relevant questions to the teachers in the class instead of focusing on important questions. Similarly, university teachers should be trained to teach students in such a way that discourages cramming culture in Pakistan.

If you have a vision or and idea that can help transform our current research & development system then write to us and we can share your idea in Future Vision next edition.

info@calrdintl.org

IEEE Upcoming Conference



The purpose of the 3rd International Conference on Electrical, Control and Instrumentation engineering (ICECIE) is to bring together researchers, engineers and practitioners interested on Control and Systems, Energy and Environment, Industrial Informatics and Computational Intelligence and other aspects of control systems and electrical engineering.

CONFERENCE AREAS

Authors are invited to submit full papers describing original research. This year a special emphasis is to be placed on automation technologies and robotics. Areas of interest include, but are not limited to the following conference tracks:

- -Power Electronic Converters and Control Systems
- -Energy and Environment
- -Industrial Informatics and Computational Intelligence
- -Power Electronics
- -Distributed Generation and Grid Interconnection
- -Electric Machines and Drives
- -Electric Vehicles
- -Energy Policies & Standards
- -Energy Storage & Battery Charging Techniques
- -Fuzzy Semantic Web
- -Lighting Technologies
- -Microgrid & Smart Grid
- -Nature Inspired Algorithms and Machine Learning
- -Power Quality Issues
- -Renewable Energy Resources
- -Surveillance and Monitoring
- -Swarm Intelligence and Algorithms for Optimizing Smart Cities
- -Wide Band Gap Devices
- -Signal and Information Processing
- -Automation technologies and robotics

IMPORTANT DATES

Paper Submission:

June 15, 2021

Authors Notification:

August 1, 2021

Conference Date:

November 27, 2021

PUBLICATION

Conference Proceedings

IEEE Xplore Digital Library

IEEE Transactions on Industry Applications

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Research Opportunities



TWAS Research Grants Programme in Basic Sciences (Individuals)

Under this scheme, grants are awarded to promising high-level research projects in Biology, Chemistry, Mathematics and Physics carried out by individual scientists in one of the S&T-lagging countries identified by TWAS.



The TWAS Research Grants Programme in Basic Sciences was established in response to the needs of researchers in developing countries, particularly those attached to institutions that lack appropriate research facilities. Under this scheme, grants can be awarded for research projects in Biology, Chemistry, Mathematics and Physics either to individual young researchers, or to research units in the science-and-technology-lagging countries (S&TLC) identified by TWAS, to enable them to purchase the research facilities they need to enhance their productivity.

The information on this page refers to proposals submitted by **individual young researchers**. For proposals submitted by research units, please see TWAS Research Grants Programme in Basic Sciences (Groups).

How to apply

- TWAS Research Grant applications can ONLY be submitted online now by clicking on the "Apply Now" tab at bottom of this page.
- Please note that a researcher may only submit one application at a time and for only one kind of grant (either
 as an individual applicant, as a research unit, ISDB or the OWSD Early Career Women Scientists (ECWS)
 Fellowship). Applicants cannot apply for other TWAS programmes i.e. Postdoctoral, Visiting Scholar and
 Visiting Researcher programme within the same year in order to be present in their home country throughout
 the duration of the grant.
- For any queries please contact Ms. P. Patel, e-mail: researchgrants@twas.org.

When to apply

The deadline for receiving applications is 14 April 2021. We strongly recommend that you do not wait until the
deadline but submit the application as early as you can to enable us to process your application as quickly as
possible.



Research Opportunities

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PostDoc and PhD positions in flexible sensors and soft robotics at UConn

PostDoc and PhD positions available in Wang Research Lab (https://www.wangresearchlab.com) in the department of Material Science and Engineering (MSE) and the Institute of Material Science (IMS) at the University of Connecticut (UConn)

Research: Both PostDoc and PhD positions are available in two areas of interest. 1) Electronic sensors, with an emphasis on soft, flexible electronics including but not limited to pressure, conductivity, and temperature sensors. Candidates with experiences in microfabrication and/or circuit design are preferred. 2) Soft robotics including underwater robotics. Candidates with experience in the design and control of robotics are preferred.

Future Vision

PostDoc Position: Available starting from April 1st, open until filled

Interested candidates are encouraged to send a single Pdf containing a resume or CV, copies of two relevant publications, and the name and contract information of three references to Prof. Xueju "Sophie" Wang at xueju.wang@uconn.edu

PhD Position: Fall 2021

Interested candidates are encouraged to send single pdf containing a resume or CV, copies of transcripts, and the names and contact information of three references to Prof. Xueju "Sophie" Wang at xueju.wang@uconn.edu

You and Your Research Supervisor

Published 10th Feb 2021 Dr. Rao Kashif Research Ethics Series

Article 1

There is an African Proverb,

"If you want to go fast, GO ALONE. If you want to go far, GO TOGETHER."

Research is more like a long journey. And for being successful in this journey, you need a companion, a guide, and a lot of interest. Lacking any one of these will leave you in the mid-journey with lots of regrets. A research supervisor is more a work partner than just a teacher. It's true that without proper funding and institute support, it's difficult to produce quality research, but the thing that matters the most is the selection of your research supervisor.

Imagine you are a rally race driver. Your institute is your jeep, and the funding is your fuel. However, a

Its not the
institute, what
matters is the
person you are
choosing for your
research
supervision

power jeep and fuel are not enough to win the race. The rally driver needs a co-driver. This co-driver navigates the driver on track and alerts them about the hurdles in dusty, zero-fusibility tracks. The responsibility of a co-driver is to guide with the best possible knowledge, but in the end, it depends on the driver that how much effort they put into following the instructions and driving the jeep to their destination. Even the best driver with a world-class jeep and fuel cannot win the race without a co-driver. The same is the case with the research field. No matter how strong your jeep (institute) is and how much fuel (funding) you have, you cannot make a successful end to your research if you do not have the right co-driver.

However, there are a number of factors one should consider while selecting a supervisor for a research degree. Some of them are listed below.

(1) What Do You Want?

It all starts with your interest. What do you want to do? Do you want to go towards qualitative or quantitative research? Do you want to make a career in academic research or industrial research? These things matter because the supervisors from academic and industrial backgrounds have different goals and expectations from their labs. An academic supervisor wants to produce high-quality research papers, while an industrial supervisor always wants to have patents, IP, and end products. For example, if you wish to pursue an industrial career and by mistake, you got a supervisor with academic expertise, it will be a disaster for your research period. So, take your time and find out what you want to do.

(2) Where Do You Want?

Vegetables can only be sold in a vegetable market. You cannot grow your vegetable business in an automobile market. Similarly, you need to select the field where you want to do your research. For example, if you are related to technology, you cannot hunt for your research degree in the Maldives (famous for vacations). You should select the origin which is most active in your area of research. Once you have listed all the origins in descending order, move to the third step.

(3) Universities Or Research Centers?

About 80 percent of supervisors in universities are associated with academic research. However, currently, universities have partially or fully operated research centers, where industrial supervisors work as full-time staff. The main difference between working in a simple university lab and a university research center is the nature of research projects. If you want your career in industrial research, you should hunt for research centers or research center labs in universities.

So from these three points, you will be able to shortlist the following things:

- (1) I want to do academic research or industrial research.
- (2) I want to do my research in **** or **** (country/region).
- (3) I want to hunt for simple university labs or research center labs.

To Be Continue in next edition

If you want to get help in your research career then you can write to me at

raokashi@ieee.org

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Prof. Dr. Zeliha Selamoglu

Department of Medical Biology
Faculty of Medicine
Nigde Ömer Halisdemir University
Campus 51240 Turkey

E-mail: zselamoglu@ohu.edu.tr



Biography:

Zeliha Selamoglu is a Professor in Medical Biology department of Nigde Ömer Halisdemir University, Turkey (Full. Prof., 2015). She earned her PhD in Biology from Inonu University (PhD, 2005). She has published over 160 peer reviewed journal articles with over 2125 citations and many technical reports.

Her research interests include tyrosine tydroxylase activity, oxidative stress, antioxidants, selenium, bee products such as propolis and also natural products. Her current research concerns the antioxidant activity, in vivo oxidative stress by environmental chemicals and health risk assessment of environmental chemicals. The studying of heavy metals which environmental contaminants, toxic agents and trace metals which have some metabolic and environmental effects are important try fields. She has researched antihypertensive effects of organ selenium, bee products such as CAPE, pollen and propolis which played an important role in suppression of oxidative stress, too. She has also researched biological activities of natural protective agents which is very important at detoxification of toxic chemicals. Besides, that the investigation of natural antioxidants which has metabolic significance and effects against oxidative stress and hypertension in vivo. In addition to, synthetic antioxidants has been included her interested area.

She has got two membership. These name are "Society for Experimental Biology and Medicine" and "European association for cancer research". She has got reviewer ship some journals. Some of these: Antioxidants & Redox Signaling, Ecotoxicology and Environmental Safety, Iranian Journal of Fisheries Science, Fish Physiology and Biochemistry, Fresenius Environmental Bulletin, Biological Trace Element Research, Journal of Food Science, International Journal of Environmental Engineering Science, International Journal of Medicine and Medical Sciences, Experimental and Molecular Pathology, European Journal of Medicinal Chemistry, Current Drug Delivery, Asian Journal of Biochemistry, International Journal of Biological Chemistry, Journal of Pharmacology and Toxicology.

h-index: 25 citations: 2125

Research Interest:

Medical Biology, Molecular Biology, Biochemistry, Biotechnology, Oxidative stress, Antioxidants, Cancer.

Dr. Chan Zhou

Center for Reproductive Medicine, Shandong Provincial Hospital, Shandong University, Jinan,

China

Email: silen_zhou@163.com



Biography:

Dr. Chan Zhou, Postdoc in the Center for Reproductive Medicine, Shandong Provincial Hospital, Shandong University, Jinan, China. Zhou received her Ph.D. from China Agricultural University in 2020. During the Ph.D. training at China Agricultural University and Xiamen University (combined training), she focus on the physiological and mechanism of embryo implantation and placentation in both mice and human. Zhou identified the role of Insulin-like Growth Factor (IGF) family in mouse embryo implantation and illustrated the maternal-fetal crosstalk via IGF ligands and receptor and the downstream pathway during this process. Besides, Zhou is also interested in the placentation and pregnancy-associated diseases, such as preeclampsia and pre-term delivery. Zhou found that the Src homology region 2-containing protein tyrosine phosphatase 2 (Shp2) is associated with mouse placentation and plays vital role in the maintenance of placental trophoblast progenitor cell population. In the future, Zhou will continue to work on the study of physiological mechanism of placental development and placenta-associated diseases in clinical.

Dr. Yiwen Zhai

Research assistant at the First Affiliated Hospital of Zhengzhou University, Zhengzhou, China.

yiwenzh@med.umich.edu



Biography:

Yiwen Zhai, Research assistant at the First Affiliated Hospital of Zhengzhou University, Zhengzhou, China. Dr. Zhai received her Ph.D. degree in Genetics from the University of Science and Technology of China in 2016. During the Ph.D. training period, her work is mainly on exploring the pathogenic mechanism of excessive NGF in polycystic ovary syndrome (PCOS). Oocytes from PCOS patients exhibit lower developmental competence, while excessive NGF exists in the follicular fluid of PCOS patients. By in vitro and ex vivo study, we revealed that excessive NGF dampens mouse oocyte maturation by inhibiting glycolysis in surrounding cumulus cells (CCs) and the inhibitory effect depend on the bidirectional communication loop between oocytes and CCs. After graduation, she worked as a research assistant at the First Affiliated Hospital of Zhengzhou University, Zhengzhou, China. Her efforts are mainly in medical genetics and contributed to direct diagnosis on patients with genetic diseases and prenatal diagnosis on pregnant women with history of genetic diseases. With a series of diagnostic techniques, such as PCR-sanger sequencing, Multiplex Ligation-dependent Probe Amplification (MLPA), Copy Number Variant (CNV) sequencing, target region sequencing (Panel) and Whole Exome Sequencing, to identify causative variants. In the recent future, she will work on the studies in revealing the pathogenic mechanism of genetic disease.

Dr. SHAKIRA GHAZANFAR

Assistant Professor (PARC Institute of Advanced Studies in Agriculture QAU, PAK)
Senior Scientific Officer (Pakistan Agricultural Research Council, Islamabad, PAK.

Office: +92-51-9073 3833 | Mobile: +92-333-5554517, Fax:+92-51-9255 034

shakira akmal@parc.gov.pk, shakira akmal@yahoo.com

Biography:

Dr. Shakira Ghazanfar got her Ph. D. degree in 2016 in Microbiology/Animal Probiotic She is working as Senior Scientific Officer, in NIGAB, National Agriculture Research Center, Pakistan since 2010. She was regarded among the pioneers, who have initiated Animal Probiotic research to improve livestock productivity in Pakistan by using local isolated microbial strains. She worked on various projects related to the improve livestock productivity. One of her key projects was She was to develop the Target based Animal Probiotic to Improve *Nilli Ravi* buffalo Milk Yield in cost effective manner. She has isolated more than 600 bacterial strains from local animal gut and submitted their sequencing in to NCBI. She initiated the project for the Establishment of NIGAB-Microbial Culture Collection (NMCC) at NARC. MNCC is a microbial gene bank for the preservation of the bacterial strains for future use in teaching, research and industrial application. Currently She has more than 1000 microbial strains in the NMCC including *Pediococcus pentosaceus:* Involved in the preparation of silage for improve milk yield in hot condition, *Bacillus tequilensis:* Involved in the preparation of silage for improve milk yield in hot condition, *Lactobacillus agilis, Lactobacillus delbrueckii:* Main bacteria involved in the production of yogurt; *Pediococcus acidilactici, Enterococcus faecalis, Weissella cibaria, Weissella confusa, Weissella bombi, Lactobacillus plantarum, Lactobacillus rhamnosus etc.*

At present, her prime research interests are: Target Probiotic preparation by using Next generation sequencing tools; Food Safety (food-borne illness associated pathogens, nano-active packaging), Nano-medicine (multi-drug resistance related diseases). She is an active researcher and produced many publications in well reputed journals and conferences and published many research papers and book chapters and engaged in research supervising multiple students at PhD, Graduate and Under-graduate level

Dr.Shazia Perveen

Assistant Professor at Women University Multan



Biography:

Dr.Shazia Perveen, PhD in neurobiology from the College of Medicine, Saint merry Hospital, Catholic University of Korea. She did her PhD on Korean Scholarship Brain Korea21. M.Phil. Animal Biotechnology from Qauid-e-Azam University. During the Ph.D. training at Catholic University of Korea research focused on the physiological and mechanism of calcium channels and homeostasis of calcium and effect of polyphenols on rat hippocampus primary cells, prostate cancer cell line and PC12 cells. As well as role of polyphenols on prostate cancer cell with respect to calcium after induction of Growth Factor (IGF) family in cell lines. Right Now, Dr.Shazia Perveen is working as an assistant professor in the women university Multan, Department of Zoology since last 6 years. Shazia also interested in the neuronal disorders in Pakistani population and role of polyphenols in neuronal diseases.

In addition, she is doing projects on epilepsy and life time member of PBSA. She has 15 international publications and 1 patent and member of The IRES Committee Member.

She also won the Women Development Department, Government of The Punjab 4.6 Million grant. For daycare center of WUM..

Until now 12 M.Phil. students supervised and 2 PhD students doing working under her supervision.

If your research interest matches with our research professionals then you can directly contact them for research collaboration.

Further if you are looking for your research collaboration then share your research profile with us and we will help publish in our next issue.

info@calrdintl.com

Achievement

Aymon Malik





Aymon Malik is BS (Hons) Zoology student at University of Central Punjab, Lahore. She is doing her research work in collaboration with CALRD under Dr. Faiza supervision. Her research work entitled "Stress among Pakistan students in virtual classrooms during COVID-19" GOR 2nd prize in poster competition held in 3rd ICAZ-2020 at Quaid-e-Azam University

Islamabad.

3rd ICAZ-2020 Annual event of AZSP (Applied Zoology Society of Pakistan)

P-207/ICAZ-2020/Aymon Malik (UCP Lahore)





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