

### Center of Innovation in Personalized Medecine 144 A.H.



# Ongoing Research Projects - Receiving Institutional Support



- Self-nanoemulsified based 3D-printed polypills as a personalized medicine for patients with metabolic disorders (IFPRC2020-166-176-).
- 3D Bioprinting of Collagen/ SiO-2NPs -Based Human Skin Tissues as a Platform for Screening Topical Nanomedicines (IFPRC2020-142-121-).
- Innovative Nano-therapeutic Approach to Reduce Complications of Acute Respiratory Distress Syndrome (IFPRC2020-142-203-).
- Neurochemical, Pharmacological, and Behavioural Characterisation of Novel Nanocarrier-Encapsulated Anti-seizure Therapy (IFPRC2020-140-171-).
- Development of Multi-compartment 3D-printed tablets Loaded with Different Drugs Nanoparticles: A New Strategy Applied in Personalised Medicine and Therapeutic Plans Requirements (IFPRC2020-166-056-).
- Innovative gene Therapy for Primary Microcephaly in Saudi Arabia. International Collaboration Grant RDO Office (MoE) (RDO902)

# Ongoing Research Projects (Researcher - General)



- Designing Antimicrobials Using the Tunable Surface رقم البحث ( Froperties of Nanoemulsions (51983 ) ...
- epitope-labelled nanoemulsion-based A novel adjuvant system for future vaccine application with potent immunogenicity and acceptable safety profile.

# **Registered Patents**



"A simplifies PCR method for the detection of common aneuploids in human reimplantation embryos" Filed. USSN 991,118/16



CIPM won 1st Rank in the 3MT (Three minuet thesis) of KAU - A student (Shahad Maqadam) conducted a research project at Nanomedicine Unit supervised by Dr. Hossam Tayeb.

### Other achievements (patents filed and at various stages in the evaluation process)



No.	Title	Disclosure Date	Disclosure Status
126-2021	TAMANU OIL-IN-WATER NANOEMULSION FOR TOPICAL SKIN APPLICATIONS	12 Sep 2021	Disclosure Accepted
118-2021	Self-nanoemulsified based 3D-printed polypills as a personalized medicine for patients with metabolic disorders	25 Aug 2021	Disclosure Accepted
103-2021	Nanotechnology Based Topical Gel for Treating Insect Bites	7 Jul 2021	Disclosure Accepted
102-2021	Nanotechnology Based Transdermal Patch for Treating Insect Bites	22 Jun 2021	Disclosure Accepted
097-2021	A 3D-printed tablets applied in personal medicine	10 Jun 2021	Disclosure Accepted
059-2021	Transdermal patch loaded by terbinafine ethotransfersomes for fungal nail infection	20 Mar 2021	Disclosure Accepted
020-2021	Ultra-effective Novel Water Disinfectant Material	26 Jan 2021	Disclosure Accepted



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# ISI Publications published during the year 1442 AH



Title: CALR, JAK2 Exon 14, and JAK2 Exon 12 mutations profiles in patients with Myeloproliferative Neoplasms
Authors: Elrashed B. Yasin1, Heba Alkhatabi2,3, Hanadi Talal Ahmedah1, Raed Felimban2,4, Hossam H. Tayeb2,5, Zainab Jawdat Alalla3,
Heyam Abdulsamad Abdulgayoom2, Raed Alserihi2,4

Journal: Bioscience Research

Title: Whole-Exome Sequencing for Identification of Genetic Variants Involved in Vitamin D Metabolic Pathways in Families With
 Vitamin D Deficiency in Saudi Arabia

Authors: Alharazy Shatha, Naseer Muhammad Imran, Alissa Eman, Robertson Margaret Denise, Lanham-New Susan, Chaudhary Adeel G.

Journal: Frontiers in Genetics

 Title: Alterations of transcriptome expression, cell cycle, and mitochondrial superoxide reveal foetal endothelial dysfunction in Saudi women with gestational diabetes mellitus

Authors: Samar Sultan, Farid Ahmed, Osama Bajouh, Hans-Juergen Schulten, Nadia Bagatian, Roaa Al-Dayini, Ohoud Subhi, Sajjad Karim,

Sultanah Almalki Journal: Endocrine

Title: Exome Sequencing Identifies Three Novel Mutations in the ASPM Gene From Saudi Families Leading to Primary Microcephaly Authors: Naseer Muhammad Imran, Abdulkareem Angham Abdulrahman, Muthaffar Osama Yousef, Sogaty Sameera, Alkhatabi Hiba, Almaghrabi Sarah, Chaudhary Adeel G.

Journal: Frontiers in Pediatrics

Title: Exome Sequencing Identifies Three Novel Mutations in the ASPM Gene From Saudi Families Leading to Primary Microcephaly Authors: Naseer Muhammad Imran, Abdulkareem Angham Abdulrahman, Muthaffar Osama Yousef, Sogaty Sameera, Alkhatabi Hiba, Almaghrabi Sarah, Chaudhary Adeel G.

Journal: Frontiers in Pediatrics

Title: Prevalence of Kell Blood Group System in Blood Donors of Makkah City, Saudi Arabia

Authors: A Khojah, R Felimban, S Kabrah, M Alqasmi

Journal: Clinical Laboratory

🔵 Title: Distribution of Kell antigens K, k, Kpa, and Kpb among blood donors in Jeddah city of Western Saudi Arabia

Authors: RI Felimban, SM Sumeda

Journal: Asian Journal of Transfusion Science, 2021

 Title: Identification of Butyrylcholinesterase and Monoamine Oxidase B Targeted Ligands and their Putative Application in Alzheimer's Treatment: A Computational Strategy

Authors: Nasimudeen R. Jabir, Md. Tabish Rehman, Shams Tabrez\*, Raed F. Alserihi, Mohamed F. AlAjmi, Mohd Shahnawaz Khan, Fohad Mabood Husain and Bakrudeen Ali Ahmed\*

Journal: Current Pharmaceutical Design

Title: The distribution of Duffy alleles and genotypes in a Western Saudi cohort

Authors: Waleed M Bawazir, Asim Khogeer, Azoof Ashour, Mohammad Sabbag, Raed Alserihi, Raed Felimban, Nora Hakami, Malik Altayar,

Ahemd Mirza, Refaat Elfayomi, Thoraia Shinawi

Journal: Medical Science

