

# Research @ Jehangir

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Quarterly Newsletter

## Recent Updates

- JCDC has collaborated with Clinerion a Basel based company by joining their Patient Network Explorer (PNEx) platform, to **accelerate data driven clinical research**. The PNEx platform helps partner hospitals be visible to sponsors seeking sites for their research programs. JCDC and Jehangir hospital are the first institutes in India to take up this initiative.
- JCDC Ethics Committee has received **Re-registration** approval from **Drug Controller General of India** (DCGI) for the next 5 years.
- JCDC has successfully completed recruitment for a large sponsored Vaccine study, exceeding the enrolment target.
- Our 1<sup>st</sup> batch of Molecular Genetics certificate course (e-learning) has commenced, which also includes 4 days hands-on practical training.

## Publications & Awards

- Diagnosis, Genetics, and Therapy of Short Stature in Children: A Growth Hormone Research Society International Perspective. *Horm Res Paediatr.* 2019 Sep 12:1-14.
- Static cut-points of hypertension and increased arterial stiffness in children and adolescents: The International Childhood Vascular Function Evaluation Consortium. *J Clin Hypertens (Greenwich).* 2019 Aug 7.
- Adolescent pregnancy and bone density in premenopausal women. Received an Investigator award for excellent research at the 9th International Conference on Children's Bone Health held at Salzburg, Austria, June 2019.
- Test Anxiety among school going children and adolescents, factors affecting and impact on quality of life: A multicentric study. **Received 2nd award for best oral research abstract and presentation** at 16th Annual National Conference of Developmental Pediatrics held at Pune, India, 1st September 2019.

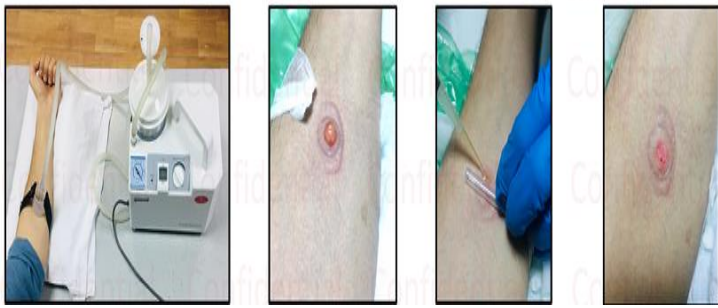
## JCDC @ Venture Center Base Camp

JCDC has always been at the forefront when it comes to encouraging new innovations from startups across India. JCDC participated at the **Venture Center Base Camp**, conducted on 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> August 2019. Our experts provided valuable insights on the Ethics, regulations, design and budgeting of clinical studies for Medical Devices and In-vitro diagnostics. The event was very successful and was highly appreciated by the startup community.



# Initiatives in Dermatology at LinQ Labs

Skin research is plagued with multiple problems. Firstly, it relies on animals especially in cosmetology. Secondly, the clinical pharmacokinetics in dermatology utilizes blood plasma as surrogate, which can be highly misrepresentative. Lastly, lack of availability of fresh human skin to develop disease specific models for scientific testing. To overcome these challenges and to promote scientific and clinical research of dermatological agents, JCDC and LinQ Labs have developed a novel in vivo human skin blister model. The Suction Blister device is a modified negative pressure instrument/ suction machine developed for creation of suction blisters on skin. The suction end tube is connected to a 3ml syringe which is placed on the forearm skin of healthy volunteer. The suction force is gradually increased and after 1-1.5 hrs, a round unilocular blister is formed on the skin surface. The suction blister is aspirated using a sterile needle to collect the interstitial fluid or it is de-roofed and the roof is used for ex vivo studies.



- The Blister study was approved by our Ethics Committee, 10 healthy volunteers were recruited in the study. After taking their consent, the blister was formed on the ventral side of the forearm, and the blister fluid was collected.
- The volunteers were on follow-up for 10 days during which it was observed that the blister was completely healed and the volunteers had no complaints, thus deeming the study to be safe.

## Blister Formation

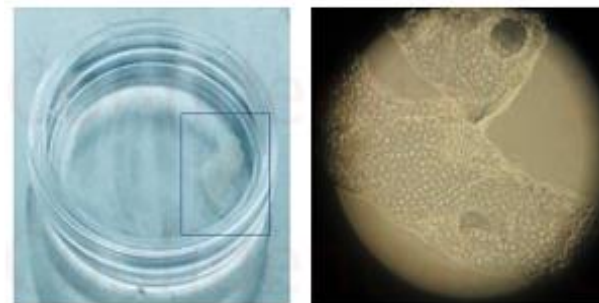
## Goals of the Blister Model

The blister model provides dermal interstitial fluid to understand topical drug absorption. In addition, it is a source of fresh skin ex vivo epidermis for investigation of agents targeting **acne, hyperpigmentation, scars and ageing**. The skin site can be utilised to test novel wound healing agents.

The skin blister model aims to replace animal testing of cosmetics, encourage scientific validation of cosmetics, ayurvedic preparations in addition to novel dermatological APIs and investigate absorption of topical drugs into skin.

## Healing Process of Skin Blister

## Microscopic View of the Blister



## Contact Us

For any ideas, suggestions, feedback please do not hesitate to contact us

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