



Diverse Assets & Applications International LABoratory Classroom for Advanced & Frontier Education

SERIES 96

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CMBRI Seminar Series FY2024-06

Vishal KUMAR

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Series – 96

Date and Time – Sept. 11 (3:30 PM JST)

Venue - Zoom

Speaker – Vishal KUMAR

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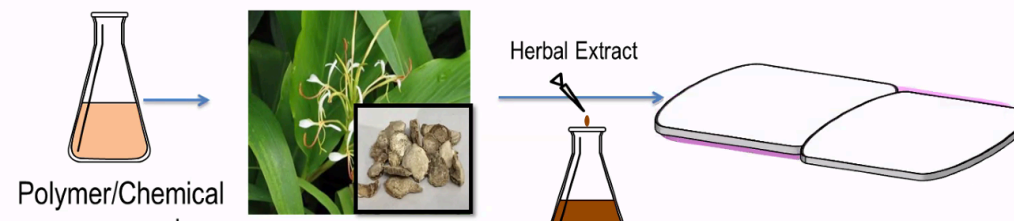


Title – Biocomposites for wound healing and other biomedical applications

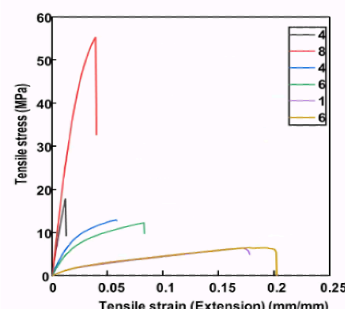
Abstract – Healing takes place through inflammation, proliferation, and remodeling stages in wounds. Many a times due to wound infection they didn't heal and becomes chronic. In chronic wounds both Ayurveda and conventional medical systems have their own limitations and it also causes maximum morbidity and mortality in chronic wound patients. In Ayurveda various treatment modalities (Surgical procedures) by Acharya Sushruta (Sushruta Samhita, Vrana Shasthiupakarma (sixty therapeutic procedures) by Acharya Sushruta, Lepa (external application) etc. but the standardization is missing. Preparations are time consuming and microbial contamination can occur during preparation. There are many patient friendly applications available like patches, hydrocolloids etc. About 150 single herbs are described in Ayurveda for wound healing. It can be used with integration of these new patient friendly applications.

The study aimed at development of biocomposites for wound healing and other biomedical applications. Standardization was done with swelling, Water Vapour Transmission Rate (WVTR), X-Ray Diffraction (XRD), Fourier Transform Infrared Spectroscopy (FTIR) along with its anti-microbial studies. The herb is mentioned in Ayurveda having wound healing activity and the bicomposite showed good anti-microbial activity and wound healing activity *in vivo* and clinical study.

Development of Herbal Patch



Tensile strength study



Durability and Protection



	Renu WADH... (Hos		Ruchira
	Vishal Kumar		Sayantan Saha
	Anushka Garhwal		Sonam Lama (Sikk
	Pynhunlang Kharnz		Souvik Das
	Aakriti Rai (Sikkim)		Sunil KAUL (AIST-
	Ajaikumar Kunnum		Uzini
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	Aviral Kumar		Zoom user
	Bharathwaj N		Bintee
	Harsha K Chandras		Pynhunlang Kharnz
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Pharmacodynamic appraisal of wound-healing herbs of *Sushruta Samhita*

Vishal Kumar, Tanuja Manoj Nesari, Shivani Ghildival, and Rahul Sherkhane

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