SITI FATIMAH SAMSURRIJAL

PKTAAB RESEARCH OFFICER PROFILE

RESEARCH PROFILE

- Scopus ID : 57203393615
- Researcher ID: rid59240
- ORCID : 0000-0002-6480-3764
- Google Scholar ID : NlorxOYAAAAJ

EXPERTISE

- Biomaterials and Bioactive Glass
- Cell Culture and In Vitro Studies
- Biocomposite Film Development

RESEARCH INTEREST

- Biocomposite Materials
- Biomedical and Dental Applications
- Biocompatibility and Cytotoxicity Studies

RESEARCH GRANT

1. USM STGQ. Fabrication of bioactive glass/polyvinyl alcohol composites enriched with Acmella oleracea extract for dental pulp regeneration (2026-2028). Principal Investigator
2. Bridging Grant. Investigation of Morphological, Structural, and Biological Properties of Miswak-Bioactive Glass Pellets: Analysis of Changes Post-Immersion in Simulated Body Fluid and Effects on Oral Bacterial Viability (2025-2026). Co-researcher.
3. Bridging Grant. Efficacy of Bioactive glass-based paste reinforced with calcium phosphate and carboxymethylcellulose for enamel demineralization (2026-2027). Co-researcher
4. FRGS. "Understanding the novel bioactive glass/ßtricalcium phosphate surface coatings on dental implant for enhanced stability (2023-2026). Co-researcher
5. PRGS. "In vivo evaluation of Bioglass-polymer composite film patch for treatment of mucosal ulceration (2020-2023). Co-researcher
6. FRGS. "Evaluation and characterization of bioglass miswak composite as toothbrush bristle. Co-researcher
7. FRGS. "Mechanism of surface modification and functionalization of graphene-poly(3-hydroxybutyrate-co-4-hydroxybutyrate)-bioactive glass composite for potential in wound healing. Co-researcher

SKILLS

- Biocomposite material
- Cell culture and in vitro biological evaluation
- Bioactive glass fabrication

QUALIFICATION

Bachelor of Science with Honours (Biology)
Universiti Kebangsaan Malaysia (2008)

CONTACT

Pusat Kanser Tun Abdullah Ahmad Badawi,
Universiti Sains Malaysia (USM),
Bertam, 13200 Kepala Batas,
Pulau Pinang, Malaysia.

+604-5622888 ext: 2537

+6017-4627589

fatimahsamsurrijal@usm.my

USM expert link:
https://experts.usm.my/cvitae/fatimahsamsurrijal

TOP 10 RESEARCH PUBLICATIONS

1. **Samsurrijal, S.F**., et al., Enhancement of dental pulp stem cell viability using Acmella oleraceae extract combined with bioactive glass. Journal of Biomedical and Clinical Sciences (JBCS), 4(1): p. 34-43.
2. Sujon, M.K., **Samsurrijal, S.F**., Baharin, R., Isa, N.M., Zabidi, M.A. and Mohd Noor, S.N.F. (2025), Effects of Gamma Irradiation on Structural, Chemical, Bioactivity and Biocompatibility Characteristics of Bioactive Glass–Polymer Composite Film. J Biomed Mater Res.
3. **Samsurrijal, S.F**., Sharifulden, N.S.A.N., Azizan, N.S., Chau, D.Y.S., Noor, S.N.F.M. (2022). Identifying Bioglass and Liquid Exfoliation of Graphite/MWCNT Mixtures Through UV–Vis Spectroscopy. In: Usman, J., Liew, Y.M., Ahmad, M.Y., Ibrahim, F. (eds) 6th Kuala Lumpur International Conference on Biomedical Engineering 2021. BIOMED 2021. IFMBE Proceedings, vol 86 . Springer, Cham.
4. **Samsurrijal, S.F.,** Noor, S.N.F.M., Sujon, M.K., Musa, K. (2022). Determination of Suitable Bioactive Glass-Polymer Film Conditioned Medium Extracts for Potential Applications in Tissue Regeneration: A Preliminary Study. In: Usman,J., Liew, Y.M., Ahmad, M.Y., Ibrahim, F. (eds) 6th Kuala Lumpur, IFMBE Proceedings, vol 86 . Springer, Cham.
5. Abdul Rahim MAH, **Samsurrijal SF**, Abdullah AA, Mohd Noor SNF. Development and physiochemical assessment of graphene-bioactive glass-P(3HB-co-4HB) composite scaffold as prospect biomaterial for wound healing. Biomed Mater. 2024 Jun 25;19(4). doi: 10.1088/1748-605X/ad5632. PMID: 38857599.
6. **S. F. Samsurrijal**, F. M. Suhaimi, S. N. F. Mohd Noor and S. M. Zin, "Effects of DPSS laser on Human Dermal Fibroblasts and Human Breast Cancer cells lines," 2018 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES), 2018, pp. 457-460, doi:10.1109/IECBES.2018.8626705.
7. Mohd Aiman Hakimi Abdul Rahim, **Siti Fatimah Samsurrijal**, S. N. M. Mohd Noor (2023). UV–Vis Spectroscopic Trends of Liquid-exfoliated Graphite/ Graphene Nanoplatelets/Bioactive Glass Mixtures. Published in Journal of Physical Science 25 August 2023. Materials Science, Chemistry.
8. N.S. Nik Syahirah Aliaa, M.N. Siti Noor Fazliah, **S. Siti Fatimah**, A. Nur Syazana, Synthesis and Characterization of PLA-PEG Biocomposite Incorporated with Sol-Gel Derived 45S5 Bioactive Glass, Materials Today: Proceedings.
9. Nik Syahirah Aliaa Nik Sharifulden, Siti Noor Fazliah Mohd Noor, **Siti Fatimah Samsurrijal**, Siti Nur Liyana Ramlee, Nur Syazana Azizan. Investigation of PLA-PEG-45S5 Bioactive Glass Composite Enhancement on Bioactivity. Key Engineering Materials 2020;833:214-219
10. Masturah Mohd Narawi, Hock Ing Chiu, Y. Yong, Nur Nadhirah Mohamad Zain, Muggundha Raoov Ramachandran, C. Tham, **Siti Fatimah Samsurrijal**, V. Lim. Biocompatible nutmeg oil-loaded nanoemulsion as phytorepellent. Published in Frontiers in Pharmacology, section Ethnopharmacology