



Nur Hilwani Ismail

Profile

Nur Hilwani is currently a Senior Lecturer teaching Cell biology at Faculty of Applied Sciences, UiTM. She is the recipient of Universiti Teknologi MARA (UiTM) Young Lecturer's Scholarship and Bumiputera Academic Training Scheme (SLAB) by Ministry of Higher Education Malaysia for her postgraduate studies at masters level. She is the alumni of Centre of Reproductive Medicine (CRM) Cleveland Clinic – EART IVF programme. Research experiences includes supervision of undergraduates and postgraduates in research projects such as sperm physiology, molecular physiology, cellular processes as well as utilization of nanoparticles in life science in vitro studies

Language Proficiency: IELTS band 8 out of 9 for overall score. Proficient in both spoken and written English and Malay.

Education

Master of Science (by Research) Molecular Biology Universiti Teknologi MARA (UiTM), Shah Alam. 2012. Thesis title: Effects of Cold Shock Protein Gene on Cryopreserved Bovine Spermatozoa.

Bachelor of Science (Hons.) Biology Universiti Teknologi MARA (UiTM), Shah Alam. 2006-2008.

Papers Published

1. *Analysis of Bovine Spermatozoa CSP-Gene Expression using qPCR and Relative Quantification Method as Biodiagnostic Tool for Fertilizing Capacity.* (2018). **N. H. Ismail**, S. F. Syed Mohamad, F. H. F. Jaafar, K. Osman, F. Z. MohdYusof and S. F. Ibrahim. *International Journal of Engineering & Technology*, 7 (4.14) (2018) 127-132.
2. *Development of Sperm Separation System using Electrical Current for Bull.* (2019). Jaffar, F. H. F., Ibrahim, S. F., Ismail, M. I., Nang, C. F., Mohamad, S. F. S., **Ismail, N. H.**, ... & Osman, K.. *Jurnal Sains Kesihatan Malaysia (Malaysian Journal of Health Sciences)*, 17(1).

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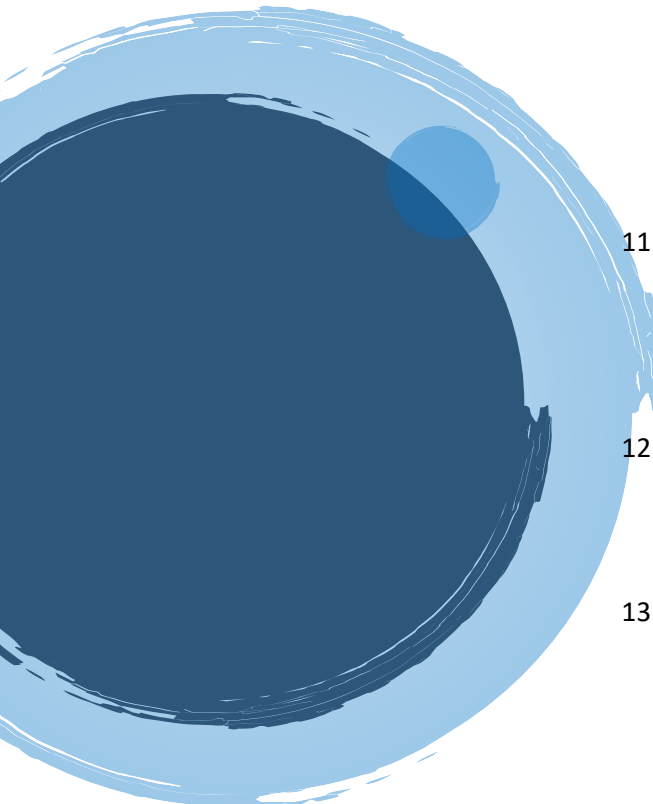
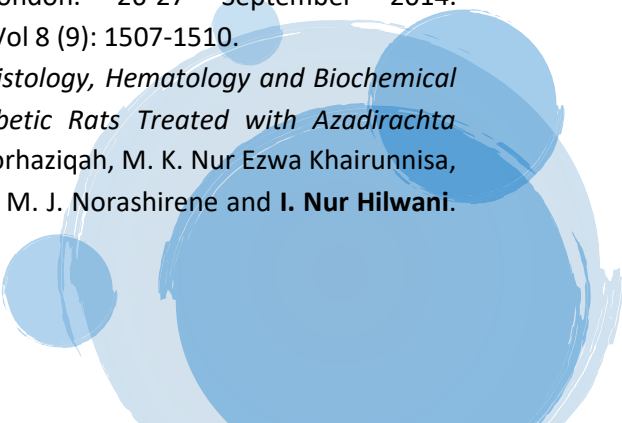


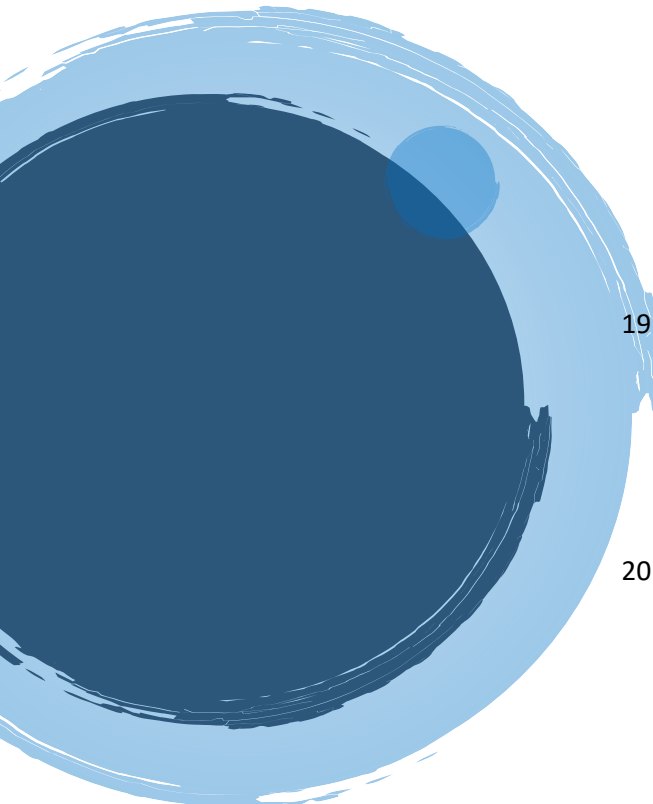
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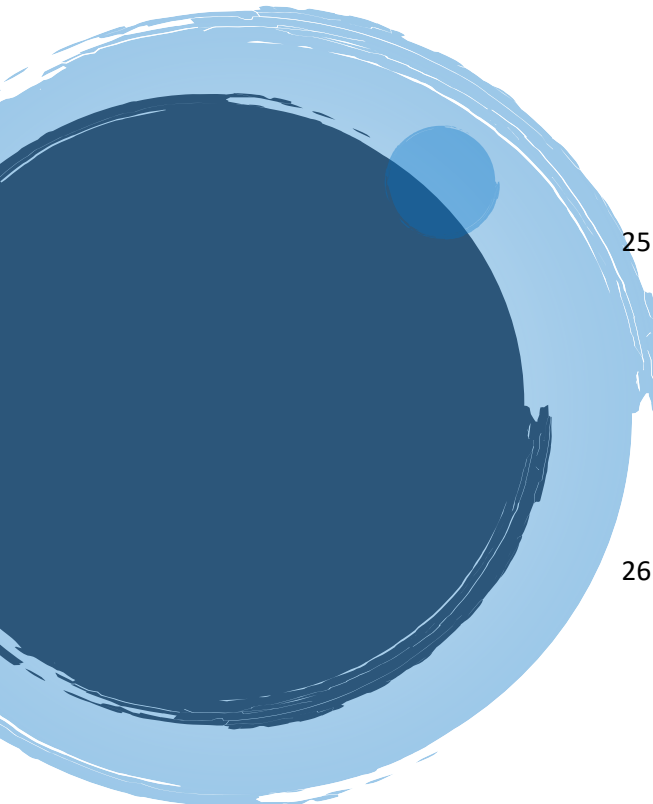


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3. *Quantification Of Hsp70 Gene Expression And Determination Of Capacitation Status Of Magnetically Separated Cryopreserved Bovine Spermatozoa At Different Thawing Temperature And Time.* (2018). Syarifah Faezah Syed Mohamad, Siti Fatimah Ibrahim, **Nur Hilwani Ismail**, Khairul Osman, Farah Hanan Fathihah Jaafar, Chew Fang Nang, Farida Zuraina Binti Mohd Yusof. *Sains Malaysiana*, 47 (6): 1101
 4. *Improvement of post-thaw sperm kinematics and DNA integrity of cross-bred bovine sperm by incorporating DGC as selection method prior to cryopreservation (2018).* **Nur Hilwani Ismail**, Khairul Osman, Farida Zuraina Mohd Yusof , Syarifah Faezah Syed Mohamad , Farah Hanan Fatihah Jaafar & Siti Fatimah Ibrahim. *Journal of Agricultural Science*, 9 (13): 24. (ERA Indexed)
 5. *Comparative study on membrane solubilisation of nano-silver & nano-zinc oxide synthesized using Pandanus amaryllifoliosus on selected sperm parameter.* **Nur Hilwani Ismail**, Mohammad Luqman Zulkipli, Helmi Khusairi Baharudin, Nurul Husna Rifin and Rabiataladawiyah Md. Akhir. *International Symposium of Malaysian & Turkish Native Plant Species Applications 10th February 2017.*
 6. *Plasma testosterone and testis histological features of mice treated with Averrhoa bilimbi, Cosmos caudatus & Pereskia bleo ethanolic extract.* Marysia Julius Booh, **Nur Hilwani Ismail**, Dzulsuhaimi Daud and Noorain Hashim. *International Symposium of Malaysian & Turkish Native Plant Species Applications 10th Februari 2017.*
 7. *Innovative Nano ZnO from low cost native plant.* Rabiataladawiyah Md. Akhir, Nur Aimi Jani, Siti Nurzatulikma Omar, Mohd Muzamir Mahat, **Nur Hilwani Ismail**. (SRIIC 2017: 15 Ogos 2017).
 8. *Fertility potential of sperm physiologic state.* **Nur Hilwani Ismail**. 2017 *International Forest Ecosystems and Biodiversity Panel*, Kastamonu University, Turkey; 15 Ogos 2017.
 9. *Cost effective Nano Zinc Oxide for anti-corrosion properties.* Rabiataladawiyah Md. Akhir, Nur Aimi Jani, Siti Nurzatulikma Omar, Mohd Muzamir Mahat, **Nur Hilwani Ismail**. (iidex 2017: 25-29 September 2017).
 10. *Therapeutic Potential of Plant Species Derived from Some Annonaceae Genus.* Aziz, A., Taha, H., **Ismail, N. H.**, Yusof, F. Z. M., & Bakar, M. Z. A. (2016). *International Journal of Agriculture and Forestry*, 6(6), 214-221.
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11. *Anti-cancer Potential of Pseuduvaria Macrophylla in Human Cancer Cell Lines.* (2016). A. Aziz, H. Taha, N. Mohebbali, Y. I. Chung, **N. H. Ismail**, M. Z. A. Bakar and F. Z. M. Yusof. Journal of Advanced Research in Applied Sciences and Engineering Technology, 4 (1): 1-11. ISSN (online): 2462-19431 (SCOPUS indexed)
 12. *Effects of Cosmos caudatus on sperm quality of mice, Mus musculus.* Marysia Julius Booh, Nooraain Hashim, **Nur Hilwani Ismail**, Dzulsuhaimi Daud. (2015). Malaysian Applied Biology Journal 44(1): pg 89 – 93. (Scopus Index)
 13. *Histological Changes of Testes of Mice Administered with Different Concentrations of Cosmos caudatus Ethanolic Extract.* Marysia Julius Booh, Nooraain Hashim, Dzulsuhaimi Daud and **Nur Hilwani Ismail.** (2015). Malaysian Applied Biology Journal 44(3): pg 33-36. (Scopus Index)
 14. *Comparative study on membrane solubilisation of biosynthesized nano-silver & biosynthesized nano-zinc oxide on selected sperm parameter.* **Nur Hilwani Ismail**, Mohammad Luqman Zulkipli, Helmi Khusairi Baharudin, Nurul Husna Rifin And Rabiatuladawiyah Md. Akhir. (2015). Malaysian Applied Biology Journal 44(3): pg 55-62. (Scopus Index)
 15. *Plasma testosterone and testis histological features of mice treated with Averrhoa bilimbi, Cosmos caudatus and Pereskia bleo ethanolic extract.* Marysia Julius Booh, **Nur Hilwani Ismail**, Dzulsuhaimi Daud and Nooraain Hashim. (2015). Advances in Environmental Biology Journal 9 (21): pg 56-61. (Scopus Index)
 16. *Plant-mediated synthesis of biosilver nanoparticles using Pandanus amaryllifolius extract and its bactericidal activity.* (2015). Akhir, R. M., Fairuzi, A. A., & **Ismail, N. H.** AIP Conference Proceedings (Vol. 1674, No. 1).
 17. *Gonadotoxic and Cytotoxic Effect of Induced Obesity via Monosodium Glutamate on Mus musculus Testis Cytoarchitecture and Sperm Parameter.* **Nur Hilwani Ismail**, Nasibah Razali, Nurdiana Samsulrizal and Norashirene Mohd Jamil. XII International Science Conference (ICANRE), London. 26-27 September 2014. International Science Index Vol 8 (9): 1507-1510.
 18. *Attenuation of Pancreatic Histology, Hematology and Biochemical Parameters in Type 2 Diabetic Rats Treated with Azadirachta excelsa.* S. Nurdiana, A. S. Norhaziqah, M. K. Nur Ezwa Khairunnisa, S. Nurul 'Izzati, Y. Siti Amna, M. J. Norashirene and **I. Nur Hilwani.**
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- XII International Science Conference (ICANRE), London. 26-27 September 2014. International Science Index Vol 8 (9): 1511-1514.
19. *Identification of Cellulose-Hydrolytic Thermophiles Isolated from sg. Klah Hot Spring Based on 16s rDNA Gene Sequence.* M. J. Norashirene, Y. Zakiah, S. Nurdiana, **I. Nur Hilwani**, M. H. Siti Khairiyah and M. J. Muhamad Arif. XII International Science Conference (ICANRE), London. 26-27 September 2014. International Science Index Vol 8 (9): 1515-1518.
 20. *Quantification of Bovine spermatozoa cold shock Protein Gene: Effects of DGC on Expression Levels.* **Nur Hilwani Ismail**, Farida Zuraina Mohd Yusof, Khairul Osman, Siti Fatimah Ibrahim, Syarifah Faezah Syed Mohamad, Farah Hanan Fathihah Jaffar and Wan Nurhayati Wan Hanafi. 19th Scientific Meeting of Malaysian Society for Molecular Biology and Biotechnology (MSMBB). Research Management and Innovation Complex (RMIC), Universiti Malaya (UM). 31 October- 1 November 2012, pg 52.
 21. *The effects of magnetic separation on cryopreserved bovine spermatozoa motility, viability and cryo-capacitation status.* (2012). S. F. Syed Mohamad, F. Z. Mohd Yusof, F. H. F. Jaffar, K. Osman, **N. H. Ismail**, M. I. Iswadi, C. F. Nang, I. Zawawi, O. M. Abbas and S. F. Ibrahim. *Zygote*, 22(3): 378-386.
 22. *Quantification of Cold Shock Protein Expression from Bovine Spermatozoa.* **Nur Hilwani Ismail**, Farida Zuraina Mohd Yusof, Wan Nurhayati Wan Hanafi, Syarifah Faezah Syed Mohamad, Farah Hanan Fathihah Jaffar, Khairul Osman, Siti Fatimah Ibrahim, International Health Conference IIUM 2011, Vistana Hotel, Kuantan, Pahang, Malaysia. 7-8th December 2011, pg 29.
 23. *Bull Spermatozoa Motility: Optimization of Coenzyme Q10 and Alpha Lipoic Acid Concentration.* Siti Fatimah Ibrahim, Farah Hanan Fathihah Jaffar, Khairul Osman, Syarifah Faezah Syed Mohamad, Chew Fang Nang, **Nur Hilwani Ismail** & Mohd Iswadi Ismail. *Journal of Institute of Integrative Omics and Applied Biotechnology (IIOAB)*, 2 (5): 8-13. July 2011.
 24. *Quantification of HSP70 Gene Expression on Magnetically Separated Cryopreserved Bovine Spermatozoa at Different Thawing Temperature and Time.* Syarifah Faezah Syed Mohamad, **Nur Hilwani Ismail**, Farida Zuraina Mohd Yusof, Chew Fang Nang, Farah Hanan Fathihah Jaffar, Khairul Osman, Siti Fatimah Ibrahim, International Health Conference IIUM 2011, Vistana Hotel, Kuantan, Pahang, Malaysia. 7-8th December 2011, pg 109.

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25. Effects of Isolate[®] Sperm Separation Technique on the Viability and Kinetics of Bull Sperm Following Cryopreservation. **Nur Hilwani Ismail**, Farida Zuraina Mohd Yusof, Syarifah Faezah Syed Mohamad, Farah Hanan Fathihah Jaffar, Iswadi Ismail, Chew Fang Nang, Zawawi Ismail, Khairul Osman, Siti Fatimah Ibrahim, 24th Scientific Meeting of the Malaysia Society of Pharmacology and Physiology, SACC Convention Centre, Shah Alam, Selangor, Malaysia. 2nd-3rd June 2010, pg 165.
26. *Effects of Different Thawing Rates On Bull Sperm Velocity, Progression, And Viability After Magnetic Separation.* Syarifah Faezah Syed Mohamad, **Nur Hilwani Ismail**, Farida Zuraina Mohd Yusof, Farah Hanan Fathihah Jaffar, Iswadi Ismail, Chew Fang Nang, Zawawi Ismail, Khairul Osman, Siti Fatimah Ibrahim, The 11th Symposium of Malaysian Society of Applied Biology (MSAB) 2010, Kelantan, Malaysia. 13-15 June 2010, pg 52.

Scholarships Awarded

- Academic Training Scheme (SLAB). Granting Body: Ministry of Higher Education, Malaysia. (October 2010- June 2011)
- Young Lecturer Scheme (TPM 2010). Granting Body: Universiti Teknologi MARA (UiTM), Malaysia. (April 2010- June 2011)
- Funding for postgraduate studies under the Second Economic Stimulus Package (Mini budget 2009). Granting body: Ministry of Higher Education, Malaysia. (June 2009)

Postgraduate (research) Supervision

| | Students Name | Institutions | Year Enrolled | Year End |
|----|---|--------------|---------------|-----------|
| 1. | Marysia Booh (MSc candidate) | UiTM | 2012 | GRADUATED |
| 2. | Atiqah Binti Ab Aziz (MSc candidate) | UiTM | 2014 | GRADUATED |
| 3. | Nur Anis Fadilah Sukeri (MSc Candidate) | UiTM | 2014 | GRADUATED |
| 4. | Nasibah Bt Razali (MSc candidate) | UiTM | 2015 | ongoing |
| 5. | Siti Aisyah Osman (MSc candidate) | UiTM | 2015 | ongoing |
| 6. | Nurul Syafika Binti Muslimin (MSc candidate) | UiTM | 2015 | GRADUATED |
| 7. | Nursirhan Athirah Bt Sharkawi (MSc candidate) | UiTM | 2016 | GRADUATED |
| 8. | Siti Aishah Bt Zulazlan (MSc candidate) | UiTM | 2016 | GRADUATED |
| 9. | Hamizah Binti Hamzah (MSc candidate) | UiTM | 2016 | GRADUATED |

Research Awards

| Title of Research | Research Event | Award | Year Awarded |
|---|---|---------------|---------------------|
| <i>Cost effective Nano Zinc Oxide for anti-corrosion properties</i> | Invention, Innovation & Design Exhibition | Silver | 2017 |
| <i>Goniothalamus lanceolatus</i> As Novel Chemopreventive Agent in Invasive Breast Cancer Treatment. | Invention, Innovation & Design Exhibition | Silver | 2016 |
| Innovative Green Corrosion Inhibitor of Mild Steel by Nano Zinc Oxide. | Invention, Innovation & Design Exhibition | Silver | 2016 |
| Emerging Agents of Sperm Membrane Solubilisation: Implementation of Biosynthesized Nano-Silver and Biosynthesized Nano-Zinc Oxide | Invention, Innovation & Design Exhibition | Gold | 2015 |
| Ultrasonic Wave and pH Enhanced Formation of TiO ₂ Nanotube Structure | Invention, Innovation & Design Exhibition | Bronze | 2014 |
| Future Antimicrobial Application of Biogenic Silver Nanoparticles. iidex 2013 | Invention, Innovation & Design Exhibition | Gold | 2013 |
| Improvement of Fertility Parameters in Cryopreserved Spermatozoa. iid Johor 2013 | Invention, Innovation & Design (UiTM Johor) | Bronze | 2013 |
| Prospective Application of Antimicrobial NaNoSilver/Pandanus. iid Johor | Invention, Innovation & Design (UiTM Johor) | Silver | 2013 |
| Green Synthesis of Biogenic Nanosilver/Pandanus for Promising Antimicrobial Application. BioMalaysia & BioInnovation Awards | BioMalaysia & BioInnovation Awards | Participation | 2013 |