

Curriculum Vitae

Name: Patcharee Umroong
Position: Scientist Professional Level
Tel: 029-428-740 ext. 109,104
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EDUCATION

1997 B.Sc (Agriculture) Chandrakasem Rajabhat University, Thailand

TRAINING

2023 Training of EM Ultramicrotomy comprising of introduction to TEM sample preparation and Ultramicrotome operation, in the Electron Microscopy Unit, on June 7th- 9th, 2023 from National University of Singapore.

2014 Training of Scanning Electron Microscope and Sample preparation on March 11-13, 2014 from Research and Development Institute Kasetsart University

2014 Training courses technical Chemical, biological sample preparation for Scanning Electron Microscopic on March 27-29, 2014 from Research and Development Inst. Kasetsart University

2013 Training of Operation and Application trainings on HT7700, Transmission Electron Microscope on January 9-19, 2013 from Japan.

2013 Training of In recognition of completion of *Genesis And Apollo Operation and Certification Training* conducted on 22nd and 23rd May 2013 from EDAX Trainer

2013 Training courses technical preparation sample plant permanent slides preparation for teaching learning and research on May 29 - 31, 2013 from the Research and Development Institute. Kasetsart University

PROFESSIONAL EXPERIENCE

1994 - present Scientific Equipment and Research Division, Kasetsart University,
Thailand

AREA OF EXPERTISE

- Transmission Electron Microscope
- Specimen Preparation Techniques for Transmission Electron Microscope and Light Microscopy to study the morphology and anatomy of plants, animals, and microorganisms.

RESEARCH GRANT

As Head of Project

2019 Biodiversity of mushrooms in Thailand by microscopy technique

As Co-Researcher

2022 Structure and Bioactive Compounds of *Ulva rigida*

2021-2022 Attitude, Readiness and Feasibility Study on Farmer Career Promoting
as an Opportunity to Solve the Unemployed Problem Affected by
Covid-19 Crisis : a Case Study of Nong Mamong district, Chainat
Province

2019	morphological Changes of Sea Grape on Postharvest (preliminary), Kasetsart University Research and Development Institute, Kasetsart University Grant
2011	Anatomy and Ultra structural Changes in Cell Wall of Mangosteen Fruit with The Incidence of Translucent/Gamboges disorders, Center for Agricultural Biotechnology, Kasetsart University
2010	Toxicological Effects of Zearalenone to Immunological and Histological Changes of Vannamei Shrimp, Research and Development Institute, Kasetsart University Grant
2010	Comparative Study on Pollen and Anatomy of <i>Amomum</i> some species for Thai Herbs Commercial interests, Research and Development Institute, Kasetsart University Grant
2010-2011	The Study on Pollens Morphology of Vetiver Grass to Support the preparation of Vetiver Grass Species Database, Office of the Royal Development Projects Boards Grant Comparative Study on Pollen and Anatomy of <i>Amomum</i> some species for Thai Herbs Commercial interests, Research and Development Institute, Kasetsart University Grant

PUBLICATIONS

ผลงานตีพิมพ์ทางวิชาการ

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1. **Patcharee Umroong**, Yupadee Paopun, Yaovapa Aramsirujwet. 2021. Ultrastructural Studies of *Ganoderma* cf. *Lucidum* cell by microscopic technique, Microsc. Microanal. Res. 34(1) pp. 13-18. Published 30 June 2021
2. Dararat Changjan, **Patcharee Umroong**. 2021. Double Staining Technique for Identifying

Ultrastructure of *Citrus hystrix* DC Leaves. Microsc. Microanal Res. 34(1) pp.19-22.
Published 30 June 2021

3. **Patcharee Umroong**, Yupadee Paopun, Yaovapa Aramsirujiwet and Juthamanee Sangsawang.2020. Techniques for Preparing Spores and Hyphae of Schizophyllum commune for Morphological Observation. Microscopy and Microanalysis Research The Journal of The Microscopy Society of Thailand Res. 2020 33(1) pp. 22-27. Published 30 June 2020.
4. **Patcharee Umroong** and Panumas Kotepong. 2019. Ultrastructure studies of fungus *Colletotrichum gloeosporioides* cause of Anthracnose disease of mango by microscope technique. Microscopy and Microanalysis Research The Journal of The Microscopy Society of Thailand Res. 2019, 32(2) pp. 1-5. Published 30 October 2020.
5. **Patcharee Umroong**. 2018. Leaf Anatomy and Minimal Structure in Leaves of *Hydrocotyle umbellata* L., Obtained from Water Stress, were Examined under Electron Microscope and Light Microscope. The Journal of The Microscopy Society of Thailand. January-June 2018.Vol31(1).pp29-33. (แหล่งทุน: สวพ.มก.)
6. **Patcharee Umroong**. 2017. Anatomical study of *Hydrocotyle umbellata* L. using technique Transmission Electron Microscopy and Light Microscopy. The Proceeding of the 34th Annual Conference the Microscopy Society of Thailand 31st May – 2 nd 27 June, Bangkok, Thailand. pp. 196 –202. (Full paper) (แหล่งทุน: สวพ.มก.)
7. N. Kunagorn, C. Roopkam, **P. umroong** and N. Anukul. 2017. Meristem tip culture of Dendrobium orchid for boosting efficiency of hygienic large scale icropagation. International Society for Horticultural Science. Acta Hortic. 1155. ISHS 2017. DOI 10.17660/ActaHortic.2017.1155.62 Proc. VI Int. Symp. On Production and Establishment of Micropropagated Plants Eds.: M. Beruto and E.A. Ozudogru. pp.419-424. (แหล่งทุน: สวพ.มก.)
8. **Patcharee Umrung(Umroong)**. 2016. The structure of *Pandanus amaryllifolius* Roxb. by optical Microscopy and transmission electron microscopy. The Proceeding of the 11th Asia-pacific Microscopy Conference and 33rd MST / 39th Anatomy Association –of Thailand Annual Conference 23-27 May, Phuket, Thailand.

9. **Patcharee Umrung(Umroong)**. 2015. Pericarp of Fruit, *Citrus aurantifolia*, observed using optimal microscopy and transmission electron microscopy. The Proceeding of the 8th AMC and 32nd MST Annual Conference 28-30 January, Nakhon Pathom,Thailand.
10. Wipada Siri-anusornsak, **Patcharee Umrung(Umroong)**.2015. Microscopic Study of *Chromolaena odorata* L. The Proceeding of the 8th AMC and 32nd MST Annual Conference 28-30 January, Nakhon Pathom,Thailand.
11. **Patcharee Umrung(Umroong)**.2014.Microscopic Study of Internal Anatomy of *Ruellia tuberosa* L. under Microscopic. Journal of Microscopy Society of Thailand. Vol. 28 (1) pp.33-35.
12. Krittaya Petchpoung,Khamjut Ruenreungdee,Siriwan Soiklom,Thanapoom Maneeboon, **Patcharee Umrung(Umroong)**,Win Surachetpong and Warapa Mahakarnchanakul.Toxicological Effects of Zearalenone to Immunological and Histological Changes of Vannamei Shrimp The Proceeding of 51th Kasetsart University Annual Conference. Subject: Fisheries. P. 389-395. Kasetsart University. February 5-7, 2013.
13. Yupadee Paopun, **Patcharee Umrung(Umroong)** and PiyananThanomchat. 2012. Cell Wall Structure of Translucent Cells of Mangosteen Fruit. Proceedings of The7th International Symposium on Mineral Nutrition of Fruit Crops. 19-25 May, pp.421-425. Chanthaburi, Thailand.
14. Yupadee Paopun, **Patcharee Umrung(Umroong)**, PiyananThanomchat and ChaimongkolKongpakdee.2011. Epidermal Surface and Leaf Anatomy of *Thunbergialaurifolia* Lindl. Journal of Microscopy Society of Thailand. Vol. 4 (2) pp.61-64.
15. Chirapart A.and **(Umroong)Umrung P.**2009. Abelphoparasitic and Endophytic microbes in *Gracilaria salicomia* (C. Agardh) Dawson from Thailand. PHYCOLOGIA 48(4):19-19 Suppl. S Meeting Abstract: 53.
16. Paisai O. Manoch L. Dethoup T. Kokaew J. Eamvijan A. PiriyaPrinS. Poapun, Y. Poochinya

- P. and **(Umroong)Umrung P.** 2009. Morphological studies of slime mold *Sordariaceous* and Synnemata fungi. Journal of Microscopy Society of Thailand. 23: 25-29.
17. Yupadee Paopun, **Patcharee Umrung(Umroong)** ,Chimongkal Kongpakdee and Pachongchit Poochinya.2008 Morphological Identification of *Gomphrena* Pollen Using SEM Technique. In International Proceeding of 9th International Congress on Cell Biology.7-10 October.pp.31-35.
 18. Pachongchit P, Navikul O,Paopun Y,and **Umrung(Umroong) P.** 2008 Morphological changes of rice starch during grain development. Journal of Microscopy Society of Thailand.22:76-79.
 19. Y. Paopun, B. Chiwapreecha, P. Pachongchit, **P Umrung(Umroong)** and C. Kongpakdee. 2008. Pollen Of *Marcantia grandiflora* Imlay,Thai Endemic Plant. In Korean Journal of MicroscopyVol.38, No. 4 Supplement.pp.1176-1177(ISSN: 1225-6773)
 20. L. Manoch, O, JeamJitt, A. Eamvijarn, T. Dethoup, J. Kokeaw, Y.Paopun, P. Poochinya and **P. Umrung(Umroong)**. 2008. Light and SEM Studies on Leaf Litter Fungi. Journal of Microscopy Society of Thailand. Vol. 22. pp. 56- 59.
 21. Pachongchit P, Navikul O, Paopun Y, and **(Umroong)Umrung P,**2007 microscopy techniques ingerminated rice structure analysis Journal of Microscopy Society of Thailand . 21:36-40.
 22. P. Poochinya, O. Naivikul, Y. Paopun and **P. Umrung(Umroong)**. 2007. Microscopy Techniques in Germinated Rice Structure Analysis. Journal of Microscopy society of Thailand. Vol. 21(1) pp. 36-40.
 23. Y. Paopun, P. Poochinya, **P. Umrung(Umroong)** and C. Kongpakdee. 2006. Electron Microscopic Techniques for Pollen Onamentation of *Oryza sativa* L. In J. E. M. S. T. Vol. 20 No.1, pp. 233-234.

CONFERENCE PRESENTATIONS

1. **Patcharee Umroong**, Yupadee Paopun, Yaovapa Aramsirujiwet. 2021. Ultrastructural

Studies of *Ganoderma cf. Lucidum* cell by microscopic technique, pp. 90-91. The Proceeding of the 38th International Conference of the Microscopy Society of Thailand, 23rd- 26th March.

2. Dararat Changjan., **Patcharee Umroong**., 2021, Double Staining Technique for Identifying Ultrastructure of *Citrus hystrix* DC Leaves, pp. 92-93, The Proceeding of the 38th International Conference of the Microscopy Society of Thailand, 23rd- 26th March.
3. **Patcharee Umroong**, Yupadee Paopun, Yaovapa Aramsirujiwet and Juthamanee Sangsawang.2020. Techniques for Preparing Spores and Hyphae of *Schizophyllum commune* for Morphological Observation. The Proceeding of the 37th International Conference of the Microscopy Society of Thailand (MST37) February 26-28,2020, Kantary Hotel Korat , Nakhon Ratchasima,Thailand.pp 242-243. (Abstract)
4. **Patcharee Umroong** and Panumas Kotepong . 2019. Ultrastructure Studies of fungus *Colletotrichum gloeosporioides* cause of Anthracnose disease of mango by Microscope Technique. The Proceeding of the 36th International Conference of the Microscopy Society of Thailand, Bangkok, Thailand. pp 178 – 179. (Abstract)
5. **Patcharee Umroong**. 2018. Leaf Anatomy and Minimal Structure in Leaves of *Hydrocotyle umbellata* L., Obtained from Water Stress, were Examined under Electron Microscope and Light Microscope. The Journal of the Microscopy Society of Thailand. January-June 2018. (แหล่งทุน: สวพ.มก.)
6. **Patcharee Umroong**. 2017. Anatomical study of *Hydrocotyle umbellata* L. using technique Transmission Electron Microscopy and Light Microscopy. The Proceeding of the 34th Annual Conference the Microscopy Society of Thailand 31st May – 2nd 27 June, Bangkok, Thailand. pp. 196 –202. (Full paper) (แหล่งทุน: สวพ.มก.)
7. N. Kunagorn, C. Roopkam, **P. umroong** and N. Anukul. 2017. Meristem tip culture of Dendrobium orchid for boosting efficiency of hygienic large scale micropropagation. International Society for Horticultural Science. Acta Hortic. 1155. ISHS 2017. DOI 10.17660/ActaHortic.2017.1155.62 Proc. VI Int. Symp. On Production and Establishment of Micropropagated Plants Eds.: M. Beruto and E.A. Ozudogru. pp.419-424. (แหล่งทุน: สวพ.มก.)

8. **Patcharee Umrung (Umroong)**. 2016. The structure of *Pandanus amaryllifolius* Roxb. by optical Microscopy and transmission electron microscopy. The Proceeding of the 11th Asia-pacific Microscopy Conference and 33rd MST / 39th Anatomy Association –of Thailand Annual Conference 23-27 May, Phuket, Thailand.
9. **Patcharee Umrung (Umroong)** . 2015. Pericarp of Fruit, *Citrus aurantifolia*, observed using optimal microscopy and transmission electron microscopy. The Proceeding of the 8th AMC and 32nd MST Annual Conference 28-30 January, Nakhon Pathom, Thailand.
10. Wipada Siri-anusornsak, **Patcharee Umrung (Umroong)**. 2015. Microscopic Study of *Chromolaena odorata* L. The Proceeding of the 8th AMC and 32nd MST Annual Conference 28-30 January, Nakhon Pathom, Thailand.
11. **Patcharee Umrung (Umroong)**. 2014. **Microscopic Study of Internal Anatomy of *Ruellia tuberosa* L. under Microscopic**. Journal of Microscopy Society of Thailand. Vol. 28 (1) pp.33-35.
12. Krittaya Petchpoung, Khamjut Ruenreungdee, Siriwan Soiklom, Thanapoom Maneeboon, **Patcharee Umrung (Umroong)**, Win Surachetpong and Warapa Mahakarnchanakul. Toxicological Effects of Zearalenone to Immunological and Histological Changes of Vannamei Shrimp. The Proceeding of 51th Kasetsart University Annual Conference. Subject: Fisheries. P. 389-395. Kasetsart University. February 5-7, 2013.
13. Yupadee Paopun, **Patcharee Umrung (Umroong)**, Piyanan Thanomchat and Sumitra Poovarodom. 2012. Cell Wall Structure of Translucent Cells of *Mangosteen* Fruit. Poster presentation delivered In Proceedings of The 7th International Symposium on Mineral Nutrition of Fruit Crops. 19-25 May, Chanthaburi, Thailand.
14. Yupadee Paopun, Piyanan Thanomchat and **Patcharee Umrung (Umroong)**. 2012. **Anatomical Studies of *Amomum villosum* Lour.** Poster presentation delivered In Proceedings of the 29th Annual conference Microscopy Society of Thailand. 30 January- 1 February, Cha-am, Phetchaburi, Thailand.
15. Yupadee Paopun, **Patcharee Umrung (Umroong)** , Piyanan Thunomchat and Chimongkal Kongpakdee. 2011. **Epidermal Surface and Leaf Anatomy of *Thunbergia Laurifolia***

- Lindl. in Thailand.** In Proceedings of the 28th Annual Conference of the Microscopy Society of Thailand. 5-7 January. pp. 95-96. (Poster Presentation)
16. Yupadee Paopun, **Patcharee Umrung (Umroong)**, PiyananThunomchat. 2011. **Morphological Identification of *Thunbergia* Pollen Using SEM Technique.** In Thailand. In Proceedings of the 28th Annual Conference of the Microscopy Society of Thailand. 5-7 January. pp. 97-98. (Poster Presentation)
 17. Yupadee Paopun, Pachongchit Poochinya and **Patcharee Umrung(Umroong)**. 2010. Pollen Morphology of *Turnera* in Thailand. In Proceeding of the 27th Annual Conference of The Microscopy Society of Thailand. 20 – 22 January.pp.65-66.
 18. Pachongchit Poochinya, Yupadee Paopun, **Patcharee Umrung(Umroong)** Chimongkal Kongpakdee. 2010. Structure of Rice Starch Granules in Nanometer Scale as Revealed by Atomic Force Microscopy. In Proceedings of the 27th Annual Conference of The Microscopy Society of Thailand. 20-22 January.pp.67-68.
 19. Nual-anong Narkkong, **Patcharee Umrung(Umroong)** and Yupadee Paopun. 2010. Ultrastructure of the Lingulid Spermatozoa: Comparison within Three Species in Gulf of Thailand. In Proceedings of the 27th Annual Conference of The Microscopy Society of Thailand. 20-22 January.pp.38-39.
 20. Laka Manoch , Onuma Piasai , Tida Dethoup , Jitra Kokacw , Amnat Eamvijarn ,Sinngieaw Piriyaiprin, Yupadee Paopun, Pachongchit Poochinya and **Patcharee Umrung(Umroong)**. 2009. Morphological studies of Slime Mold, Some Noteworthy *Sordariaceae* and *Synnemata* Fungi. In Proceedings of the 26th Annual Conference of The Microscopy Society of Thailand. 28-30 January.pp.125-126.
 21. Anong. Chirapart and **Patcharee Umrung(Umroong)**. Adelphoparasitic and endophytic microbes in *Gracilaria salicornia* (C.Agardh) Dawson from Thailand. In Journal of 9th International Phycological Society. Tokyo, Japan 2-8 August 2009.pp.19.
 22. Yupadee Paopun, Pachongchit Poochinya and **Patcharee Umrung(Umroong)**. 2009. **Application of Scanning Electron Microscope to study *Ruellia tuberosa* L. Pollen**

- Morphology.** In Proceeding of the 26th Annual Conference of The Microscopy Society of Thailand. 28 – 30 January. pp. 57-58.
23. Pachongchit Poochinya, Onanong Naivikul ,Yupadee Paopun , **Patcharee Umrung(Umroong)** and Chimongkal Kongpakdee. 2009. **Scanning Electron Microscope observation on Thai Glutinous Rice and Microwawe Cooking.** In Proceedings of the 26th Annual Conference of The Microscopy Society of Thailand. 28-30 January. pp. 87-88.
 24. Yupadee Paopun, **Patcharee Umrung(Umroong)**, Chimongkal Kongpakdee and Pachongchit Poochinya. 2008. **Morphological Identification of *Gomphrena* Pollen Using SEM Technique.** In International Proceeding of 9th International Congress on Cell Biology. 7-10 October. pp. 31-35. Korea
 25. Yupadee Paopun, Pachongchit Poochinya, Patcharee Umrung(Umroong). 2009. Application of Scanning Electron Microscope to Study *Ruellia tuberosa* L. Pollen Morphology. In Proceed.
 26. Yupadee Paopun, Benchawon Chiwapreecha , Pachongchit Poochinya , **Patcharee Umrung(Umroong)** and Chimongkal Kongpakdee . 2008. Pollen of *Macania grandiflora* lmlay, Thail Endemic Plant. In Korean Journal of Microscopy Vol. 38, No. 4 Supplement. pp. 176-177.
 27. Yupadee Paopun, **Patcharee Umrung(Umroong)** , Chimongkal Kongpakdee and Pachongchit Poochinya 2008. Morphological Identification of *Gomphrena* Pollen Using SEM Technique. In International Proceeding of 9th International Congress on Cell Biology. 7-10 October. pp. 31-35.
 28. Paopun Y., P. Poochinya, **P. Umrung(Umroong)** and C. Kongpakdee. 2008. Pollen Morphology of *Gromphrena* in Thailand. In Conference of Microscopy Society of Thailand. pp. 65-66.
 29. Manocch, L., A. Emvij, O. Jeamjitt, T. Dethoup, J. Kokaew, Y. Paopun, P. Poochinya, **P. Umrung(Umroong)**. 2008. SEM Study on some Noteworthy Leaf Litter Fungi. In Conference of Microscopy Society of Thailand. pp. 22-23
 30. Poochinya, P., O. Naivikul, Y. Paopun and **P. Umrung (Umroong)** 2008. Changes in Morpholoical of Rice Starch During Grain Development. In Confernece of Microscopy Society of Thailand. pp. 63-64

31. ผจงจิต ภูจิณญาณ์ ยุพดี เผ่าพันธุ์ **พัชร อารุง** และ ชัยมงคล คงภักดี.2550. โฟกัสไขปริศนา. บนเส้นทางงานวิจัย มหาวิทยาลัยเกษตรศาสตร์ปี 2550. ในงานเกษตรแฟร์ ประจำปี 2550 ระหว่างวันที่ 26 มกราคม -3 กุมภาพันธ์ 2550. 2 หน้า.

AWARD

1. **Popular votes Award** 2020, Transmission Electron Microscope (TEM): Smile Moon **Patcharee Umroomg** The 37th International Conference of the Microscopy Society of Thailand (MST37) February 26-28,2020, Kantary Hotel Korat , Nakhon Ratchasima,Thailand.
2. **1st Prize** Micrograph Contest Award 2014, Transmission Electron Microscopy in Biological Science : Ultrastructure of Lemon Leave. **Patcharee Umrung(Umroong)** The 31st Annual Conference of the Microscopy Society of Thailand January 29-31, 2014, Khao Yai, NaKhon Ratchasima.
3. **Honorable Prize** TEM Micrograph Contest Award Materials Science Rose soil **Patcharee Umrung(Umroong)** The 30th Annual Conference on Microscopy, January 23-25, 2013 Maneechan Resort,Chanthaburi, Thailand.
4. **3rd Prize** Poster Presentation Award: Bioscience Yupadee Paopun, **Patcharee Umrung (Umroong)** and Piyanan Thanomchat. 2011. Morphological Identification of *Thunbergia* Pollen Using SEM Technique. The 28th Annual Conference on Microscopy. 5-7 January, 2011.Chiang Rai, Thailand.
5. **1st Prize** Photo Contest Award 2010 Optical Micrograph in Biological Science: Pollen Germination **P. Umrung(Umroong)**. The 27th Annual Conference of the Microscopy Society of Thailand 20-22 January 2010, Surat Thani , Thailand.
6. **1st Prize** Micrograph Contest Award, Biological Science: SEM Fungi Spore Y. Paopun, P. Poochinya and **P. Umrung(Umroong)**. The 26th Annual Conference on Microscopy January 28-30, 2009 Chiang Mai, Thailand.

7. **2nd Price** Micrograph Contest Award, Biological Science : SEM *Neosartorya* Species
L. Manoch, A. Eamvijarn, O. Priasai, Y. Paopun, P. Poochinya and **P. Umrung(Umroong)**. The 26th Annual Conference on Microscopy January 28-30, 2009 Chiang Mai, Thailand
8. **Honorable Prize** Micrograph Contest Award Biological Science: TEM Bacteria
P. Umrung (Umroong) The 6th Annual Conference on Microscopy, January 28-30, 2009 Chiang Mai, Thailand.
9. **Honorable Prize** Bioscience Poster Presentation Award 2008 Morphological Changes of Rice Starch During Grain Development P. Poochinya ,O. Naivikul, Y. Paopun and **P. Umrung (Umroong)** The 25th Annual Conference on Microscopy January 9-11, 2008 Phitsanulok , Thailand.
10. **3rd Price** Micrograph Award 2008 SEM : Bioscience Rice Starch Pachongchit Poochinya, Yupadee Poapun, **Patcharee Umrung(Umroong)** and Chaimongkol Kongpukdee The 25th Annual Conference on Microscopy January 9-11, 2008 Phitsanulok , Thailand.
11. **Honorable Prize** Micrograph Award 2008 SEM: Bioscience Gromphrema Pollen Chaimongkol Kongpukdee, Yupadee Poapun, **Patcharee Umrung(Umroong)**, and Pachongchit Poochinya. The 25th Annual Conference on Microscopy. January 9-11, 2008. Phitsanulok, Thailand.