

## RESUME

1. Name: Dr. Ningombam Swapana
2. Designation: Assistant Professor & Head  
Department, Basic Sciences
3. Department/Institute/University: Department of Basic Sciences (Chemistry),  
Manipur Technical University,  
Takyelpat, Imphal west-795004, Manipur
4. Educational Qualification: B.Sc. (Chemistry Hons),  
M.Sc (Organic Chemistry), Jiwaji University  
B.Ed. Manipur University  
Ph. D (Natural Product Chemistry), Manipur University  
Post Doctoral Fellow, Tokushima Bunri University,  
Tokushima, Japan
5. Residence address: Yaikul Janmasthan, Imphal West-795001.
6. Email: swapana550@gmail.com / swapana@mtu.ac.in
7. Phone/Mobile: 7005590668

8. **Award:** a. Recipient of **J.K.Mittal award** for best Oral Presentation in 12<sup>th</sup> National Conference on Surfactants, emulsions and biocolloids (Conferred by Indian society for surface Science and Technology, Dept of Chemistry, Jadavpur Univ, Kolkatta).
- b. Post Doctoral Fellow (Japan)

### 9. (Academic responsibility)

- a. Head of Department, Basic Sciences since 25th March 2023 till date
- b. Past HoD., Chemistry (2019-2021)
- c. Member of the Academic Council, MTU (2019,2020)
- d. Past Member of the Examination Sub Committee, MTU
- e. Member of the Inspection Committee of MTU for Affiliation,
- f. Member of the Admission Committee for Academic session 2019-2020., 2023 till date.
- g. Member of the Student Academic Support Committee since 17th Jan 2019 till date.
- h. Past Member of website Sub-Committee
- i. Member of Anti Ragging Committee.
- j. Officer- in-charge for End Term Examination Nov-Dec 2019
- k. Girls hostel warden, MTU ,2019.
- l. Member of MOOCS Sub Committee, MTU (till date)

### 10. Members:

Member of Phytochemical society of Asia

11. **Editorial Team:** International Journal of Environmental Chemistry ISSN :2454-5245.

## 12 Publications:

1. *Ternifolipyrons A–J: new cytotoxic  $\alpha$ -pyrones from Isodon ternifolius (D. Don)* Kudo Abdelsamed I. Elshamy, Tarik A. Mohamed, **Ningombam Swapana**, Yusuke Kasai, Masaaki Noji, Thomas Efferth, Hiroshi Imagawa, Mohamed-Elamir F. Hegazy and Akemi Umeyama <https://doi.org/10.1039/D3RA03146B> , **RSC Adv.**,**2023**, 13, 19710.
2. *Planispine A sensitized cancer cells to cisplatin by inhibiting the Fanconi anemia pathway*, Thangjam Davis Singh, Ningthoujam Indrajit Singh, Khuraijam Mrinalini Devi, Remmei Meiguilungpou, Lhaineichong Khongsai, Lisam Shanjukumar Singh, Naresh Chandra Bal, **Ningombam Swapana**, Chingakham Brajakishor Singh, Thiyam Ramsing Singh **Molecules** **2022**, 27, 7288. <https://doi.org/10.3390/molecules27217288>
3. *Two new diterpenoids from kencur (Kaempferia galanga): Structure elucidation and chemosystematic significance*, Abdelsamed I. Elshamy \*, Tarik A. Mohamed, **Ningombam Swapana**, Rania F. Ahmed, Tatsuro Yoneyama, Paul W. Par, Masaaki Noji, Mohamed-Elamir F. Hegazy, Akemi Umeyama **Phytochemistry Letters** 44 (2021) 185–189: <https://doi.org/10.1016/j.phytol.2021.06.023>
4. *Cytotoxic polyoxygenated isopimarane diterpenoids from the edible rhizomes of Kaempferia galanga (kencur)* Abdelsamed I. Elshamy \*, Tarik A. Mohamed, **Ningombam Swapana**, Tatsuro Yoneyama, Masaaki Noji, Thomas Efferth, Mohamed-Elamir F. Hegazy, Akemi Umeyama , \* **Industrial Crops & Products**, 158(2020)112965. <https://doi.org/10.1016/j.indcrop.2020.112965>
5. Kaemgalangol A: Unusual seco-isopimarane diterpenoid from aromatic ginger *Kaempferia galanga*; **Ningombam Swapana**<sup>a,b</sup>, Takehiro Tominagaa, Abdelsamed I. Elshamy<sup>a,c,\*</sup>, Mahmoud A.A. Ibrahim<sup>d</sup>, Mohamed-Elamir F. Hegazy<sup>e,f</sup>, Ch. Brajakishor Singh<sup>g</sup>, Midori Suenaga<sup>a</sup>, Hiroshi Imagawa<sup>a</sup>, Masaaki Noji<sup>a</sup>, Akemi Umeyama<sup>a</sup>. **Fitoterapia**, 129(2018)47-53 <http://dx.doi.org/10.1016/j.fitote.2018.06.010>
6. *A New Diphenyl Ether Glycoside from Xylosma longifolium Collected from North-East India*, **Natural Product Communications** Vol. 12 (8) 2017.1273-1275, **Ningombam Swapana**, Masaaki Noji, Rina Nishiuma, Masahiro Izumi, Imagawa, Yuusuke Kasai, Yasuko Okamoto, Kanako Iseki, Ch. Brajakishor Singh, Yoshinori Asakawa and Akemi Umeyama <https://doi.org/10.1177/1934578X1701200832>
7. *Induction of apoptosis by zerumbone isolated from zingiber zerumbet(L) Smith in protozoan parasite leishmania donovani due to oxidative stress*, S. Dey, D. Mukherjee, S. Mallick, A. Dutta, **S. Ningombam**, S. Maiti, B.S. Chingakham, C. Pal, **The Brazilian Journal of Infectious Diseases**, 2016, 20(1), 48-55 (IF-1.5) <https://doi.org/10.1016/j.bjid.2015.10.002>
8. *Protective effect of Croton caudatus Geisel leaf extract against experimental visceral leishmaniasis induces proinflammatory cytokines in vitro in vivo* Somaditya Dey<sup>a</sup> Debarati Mukherjee<sup>a</sup> Sondipon Chakraborty<sup>b</sup> Suvadip Mallick<sup>a</sup> Aritri Dutta<sup>j</sup> oydip Ghosh<sup>a</sup> **Ningombam Swapana**<sup>c</sup> Swatilekha Maiti<sup>d</sup> Narayan Ghorai<sup>b</sup> Chingakham

9. *Chemical and Biological properties of Zingiber zerumbet Smith-a review*, C.B.singh, kh.Nongalleima, S.Brojendro Singh, **Swapana Ningombam** and L.W.Singh **Phytochemistry review** (2012), 11:113-125.  
<https://doi.org/10.1007/s11101-011-9222-4>.
10. Ethnobotany, phytochemistry and pharmacology of *Ageratum conyzoides* Linn (Asteraceae) S.Brojendro Singh, W.Radhapyari Devi, Marina, W.Indira Devi, **N.Swapana** and C.B.Singh **Journal of Medicinal Plants Research** Vol.7(8), pp. 371-385, 25<sup>th</sup> feb 2013'
11. Antioxidant activities of the rhizomes of different Zingiberaceae plants of North east India, **Swapana N**, Lokendrajit N, L.W. Singh and **C.B. Singh\*** Asian journal of Biological and life Sciences, Jan-April 2013, Vol. II, issue I.
12. Evaluation of Nutritional value of two local potato cultivar (Aberchaibi and Amubi) of Manipur, North-East India, N.Lokendrajit Singh, C.B.Singh\*, **N.Swapana**, M.Sumarjit The Bioscan ,8(2),589-593,2013
13. Antioxidant properties of some exclusive species of *Zingiberaceae* family of Manipur (Padma S Vankar<sup>1</sup>, Vandana Tiwari<sup>1</sup>, L.Warjeet Singh<sup>2</sup> and **Ningombam Swapana**<sup>2</sup>, **Electronic Journal of Environmental, Agricultural and Food Chemistry**, 2008, 1318-1322.
14. Natural dye yielding plants and indigenous knowledge of dyeing in Manipur, Northeast India. (Lunalisa P, **Swapana Ningombam**, Warjeet Laitonjam, **Indian Journal of Traditional Knowledge** Vol. 7(1), January 2008, pp Tk978).
15. Total phenolic, Total flavonoid contents and Antioxidant activity of a few indigenous fruits grown in Manipur, **N.Swapana**, Ch.Bijyalaxmi Devi, M.Sumarjit Singh, S.Brojendro Singh Th.Jotinkumar and C.B.Singh , The Bioscan ,7(1) :73-76,2012
16. Herbal folk medicines used for urinary and calculi/stone cases complaints in Manipur Lokendrajit N., **N.Swapana** , Ch.Dhananjay Singh and C.B.Singh **NeBIO** Vol. 2, No. 3, September 2011, 1-5
17. 17. Ethno-medicinal plants of Manipur used in the treatment of blood pressure. Lokendrajit N, **Swapana N**, M. Sumarjit Singh and C.B. Singh, **Journal of Environment and Biodiversity (NEBIO)**, vol.2, issue 3, Sept.2011).
18. 18. *Zingiber zerumbet* smith-an important medicinal plants of Zingiberaceae family C.B.Singh, Kh.Nongalleima, S.Brojendro Singh, **Swapana.N** and Ch.Dhananjay, **Journal of Environment and Biodiversity (NEBIO)**, vol.11, issue 4, Dec.2011.
19. Antioxidant and antimicrobial activity of *Croton caudatus* Geisel N Lokendrajit, S Indira, **N Swapana**, CB Singh - **Asian Journal of Chemistry**, 201224,10,4418
20. Ethno-medicinal plants of Manipur used in the treatment of blood pressure N Lokendrajit, SI Devi, **N Swapana**, C Singh – **NeBIO**, Vol. 3, No. 1, March 2012, 39-41
21. Biological and chemical properties of *Kaempferia galanga* L.–a Zingiberaceae plant

CB Singh, SB Chanu, T Bidyababy, WR Devi, SB Singh... - NeBio, 2013,4,4, 35-41.

### 13. Books

#### a. Recent progress in medicinal plants- vol-1

Phytoconstituents, Pharmaceutical, Therapeutic and Ethnobotany Vol1  
(ISBN 987-93-82606-58-1)2022; Sunmarg Publishers New Delhi

#### b. Recent progress in medicinal plants- vol-2

Phytoconstituents, Pharmaceutical, Therapeutic and Ethnobotany  
(ISBN 978-81-19997-57-2)2024; Sunmarg Publishers New Delhi

### 14. Book chapters-

1. **Ningombam Swapana**, *Nanosensors for food quality and detection of pathogens, chemicals, and pesticides*, In Micro and Nano Technologies, Nanotechnology and Nanomaterials in the Agri-Food Industries, **Elsevier, 2024**, Pages 341-360, ISBN 9780323996822, <https://doi.org/10.1016/B978-0-323-99682-2.00008-6>
2. Dimjaneng Haokip, S. Senjam Jinus, Ningthaipuilu Longmei, Sanjukta Samurailatpam Sharma, Th. Bhaigyabati, Yendrembam K. Devi, Akoijam Ranjita Devi, B. Lalramhlumi, Vandana Mutum, **Ningombam Swapana**, Athokpam Kalpana & J. Vanitha (2024). *Breeding Potentials of Wild Forest Rattans Palms to Ensure Food Security*. Agroforestry to Combat Global Challenges. Sustainable Development and Biodiversity, vol 36. **Springer**, <https://doi.org/10.1007/978-981-99-7282-1-19>

### 15. Conference/FDP Organised:

1. KHUMANG 2020, An International e-conference on Science & Technology for Society held from 9th – 11th September 2020.
2. Faculty Development Programme on Student Evaluation and Question Paper Setting, 24<sup>th</sup> to 29<sup>th</sup> Jan 2020
3. Faculty Development Programme on Pedagogy from 26th to 30th March 2019.

### 16. Conference / workshop/ FIP attended

1. Presented a Research Paper entitled “Study of total Phenol, Protein, lipid and Carbohydrate content in selected varieties of Potato of North East India” in the International Conference on Recent Advances in Engineering, Technology and Science held on 3rd July 2022, Jaipur.
2. Presented a paper in the International Conference on Engineering & Technology, Computer, Basic Sciences entitled “Comparative study of Phenolic content and antioxidant activity of few selected fruits collected from different regions of Manipur” held on 14th May 2022, Kolkatta.
3. Completed a one week, Faculty Development program on Academic writing 2nd May to 8th May 2022
4. Completed Refresher course on “Chemistry - The Catalyst for Change” from 14 July – 28 July, 2021

5. Participated Online FDP on "Innovation and entrepreneurship" conducted by College of Engineering Pune and Institution's Innovation Council COEP held from 20/12/2020 to 24/12/2020
6. Completed **the 2nd Faculty Induction Program** conducted by North East Hill University Shillong from 2nd Nov to 4th Dec 2020.
7. Participated workshop on reforms from 20-22nd Jan 2020.
8. Presented a paper on the topic "Isolation and Characterization of compounds from Kaempferia galangal and their antibacterial activity" in the World Congress On Biotechnology Healthcare Summit-2019, held on 28th and 29th August 2019 at J.N. Tata Auditorium, Indian Institute of Science, Bengaluru, Karnataka.
9. Presented two papers at International conference held at Japan
10. Presented many papers and posters for both National and International Conference.
11. Attended a workshop on Train the trainers on examination reforms held at KLE Technological University, Hubli, Karnataka.

#### **17. Chairperson/ Resource person of Conference/ Seminar/ Workshop:**

1. Keynote speaker of the One Day Training Programme on the theme "Basics in isolation of Plant derived compounds and bioassay", held on 28<sup>th</sup> of August 2024, at T.S. Paul Manipur Women's College, Mongsangei, Imphal, Manipur.
2. Chaired a Scientific session for an International Conference organized by Institute of Bioresources and sustainable Development, Govt. of India Imphal.
3. Invited Speaker for One Day state level Seminar held on 20th August 2022 on the topic 'Importance of nutrients of mushrooms and methods of Isolation of compounds from mushroom'. Organised by United Scientific Rural Development Association, Manipur.
4. Resource person in a Two days state level workshop on "Conservation of Agro-biodiversity and its related practices" during 7th and 8th July 2022 at Mayang Imphal.

#### **18. Externally funded Research Projects – 3**

- a. Minor Research Project- funded by UGC, Govt of India. – Completed (PI)
- b. Major Research Project- funded by UGC, Govt of India. – Completed (PI)
- c. Topic: "Exploration of combination Therapy of pelargonidin, a dietary anthocyanidin with cisplatin for treatment of small cell human lung cancer" Funded by DST, Manipur- Ongoing Research Project as Co-PI.