**Mai Dang**

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**About me**

I am passionate about Aquatic Animal Health and want to understand the interactions between hosts, pathogens and environmental factors with a view to enhancing the health of aquatic animals. I am also interested in disease diagnosis, health manage vaccine development against infectious diseases and effects of toxicants on immune responses of aquatic animals.

**Qualifications**

2016 – 2020: PhD (Fisheries), University of Tasmania, Australia

2014 – 2016: Master (Aquatic Animal Health), University of Tasmania, Australia

2004 – 2009: Bachelor in Fish Pathology, Nhatrang University, Vietnam

**Employment**

2020 – now: Senior Researcher at the Department of Biotechnology, Institute of Veterinary Research and Development of central Vietnam

2009 – 2014: Researcher at the Department of Bacteriology, Institute of Veterinary Research and Development of central Vietnam

**Research expertise**

Aquatic animal health, Disease diagnosis, Fish immunology and vaccine development, Fish histopathology, Parasitology, Bacteriology, Virus isolation and Aquatic toxicology.

**Languages**

* Vietnamese (native)
* English (fluent)

**Projects**

1. Diseases caused by Lates Calcarifer Herpes Virus (LCHV) in barramundi (*Lates calcarifer*) cultured in Khanh Hoa (Principal investigator, 7/2021 – now)
2. Isolation of Infectious Spleen and Kidney Necrosis Virus (ISKNV) in barramundi (Principal investigator, 10/2020 – 10/2022)
3. Ectoparasites on armoured catfish in central Vietnam (Principal investigator, 10/2020 – 10/2021)
4. Effects of mining activities on innate immune responses of shorthorn sculpins (*Myoxocephalus scorpius*) in Greenland (PhD candidate, 2016 – 2020)
5. Improving inactivated vaccine to prevent infectious Coryza in chickens (Researcher, 2009 – 2012)
6. Strengthen CVVI’s diagnosis capacity on Salmonellosis up to the level of OIE reference laboratory (Researcher, 2012 – 2013)
7. Producing vaccine to prevent *Pasteurellosis* and *Erysipelas* in swine (Researcher, 2012 – 2013)
8. Toxoid vaccine to prevent necrosis enteritis caused by *Clostridium perfringens* in sheep and goats (2009 – 2011)

**Teaching**

* Tutor for Aquatic Animal Health unit at the University of Tasmania (a third-year undergraduate and post-graduate unit) (2019)
* Demonstrator for Aquatic Animal Health and Aquatic Animal Physiology & Behaviour Units at the University of Tasmania (2017 – 2018)
* Trainer for isolating and serotyping techniques for Salmonella strains at Central Vietnam Veterinary Institute (2012).

**Supervision**

* Co-supervised two Master's students.

**Publications**

**Journal articles**

1. **Dang, M.**, Nguyen, H.T.T., Dien, T.D., Thang, T.N., Thao, N.T.P., Dang, B.T. and Dong, H.T., **2022** Acute death in farmed marine fishes caused by sea anemone (*Bunodeopsis* sp.) in Central Vietnam. Journal of fish diseases. <https://doi.org/10.1111/jdf.13701>
2. **Dang, M.**, Dien, T.D., Ha, V.T., Hua, V.C., Thanh, N.T.H. and Nowak, B.F., **2022**. Epitheliocystis in armoured catfish (*Pterygoplichthys* spp.), anabas (*Anabas testudineus*) and tilapia (*Oreochromis niloticus*) in central Vietnam. Journal of fish diseases. <https://doi.org/10.1111/jdf.13598>
3. Nørregaard, R.D., Bach, L., Geertz-Hansen, O., Nabe-Nielsen, J., Nowak, B., Jantawongsri, K., **Dang, M.**, Søndergaard, J., Leifsson, P.S., Jenssen, B.M. and Ciesielski, T.M., **2022**. Element concentrations, histology and serum biochemistry of arctic char (*Salvelinus alpinus*) and shorthorn sculpins (*Myoxocephalus scorpius*) in northwest Greenland. Environmental Research, p.112742. <https://doi.org/10.1016/j.envres.2022.112742>
4. Shamsi, S., Day, S., Zhu, X., Mclellan, M., Barton, D.P., **Dang, M.**, Nowak, B.F., **2021**. Wild fish as reservoirs of parasites on Australian Murray cod farms. Aquaculture 539, 736584. <https://doi.org/10.1016/j.aquaculture.2021.736584>
5. **Dang, M.**, Nørregaard, R., Sonne, C., Bach, L., Stride, M., Jantawongsri, K. and Nowak, B., **2021**. Splenic and renal melanomacrophage centers in shorthorn sculpins (*Myoxocephalus scorpius*) in Nuuk harbor, West Greenland. Polar Biology, 44(10), pp.2011-2021. https://doi.org/10.1007/s00300-021-02934-0.
6. Nowak, B.F., **Dang, M.**, Webber, C., Neumann, L., Bridle, A., Bermudez, R., **2021**. Changes in the Splenic Melanomacrophage Centre Surface Area in Southern Bluefin Tuna (*Thunnus maccoyii*) Are Associated with Blood Fluke Infections 1–9.
7. **Dang, M.**, Pittman, K., Sonne, C., Hansson, S., Bach, L., Søndergaard, J., Stride, M., Nowak, B., **2020**. Histological mucous cell quantification and mucosal mapping reveal different aspects of mucous cell responses in gills and skin of shorthorn sculpins (*Myoxocephalus scorpius*). Fish Shellfish Immunol. 100, 334–344.
8. Shamsi, S., Zhu, X., Barton, D.P., **Dang, M.**, Freire, R., Nowak, B.F., **2020**. *Dermocystidium* sp. infection in farmed Murray cod, *Maccullochella peelii*. Aquaculture 528, 735596. <https://doi.org/10.1016/j.aquaculture.2020.73559>
9. **Dang, M.**, Nowell, C., Nguyen, T., Bach, L., Sonne, C., Nørregaard, R., Stride, M., Nowak, B., **2019**. Characterisation and 3D structure of melanomacrophage centers in shorthorn sculpins (*Myoxocephalus scorpius*). Tissue Cell 57, 34–41. <https://doi.org/10.1016/j.tice.2019.02.003>
10. **Dang, M.**, Pittman, K., Bach, L., Sonne, C., Hansson, S. V., Søndergaard, J., Stride, M., Nowak, B., **2019**. Mucous cell responses to contaminants and parasites in shorthorn sculpins (*Myoxocephalus scorpius*) from a former lead‑zinc mine in West Greenland. Sci. Total Environ. 207–216. <https://doi.org/doi.org/10.1016/j.scitotenv.2019.04.412>
11. Shamsi, S., **Dang, M.**, Zhu, X., Nowak, B., **2019**. Genetic and morphological characterization of Mawsonascaris vulvolacinata n. sp. (Nematoda: Anisakidae) and associated histopathology in a wild caught cowtail stingray, Pastinachus ater . J. Fish Dis. 1–10. <https://doi.org/10.1111/jfd.13016>
12. Verland, N., Kaarsholm, H.M., Nørregaard, R.D., Bach, L., Leifsson, P.S., **Dang, M.**, Nowak, B., Sonne, C., **2019**. Histology of sculpin spp. in East Greenland. I. Histological measures. Toxicol. Environ. Chem. 2248. <https://doi.org/10.1080/02772248.2019.1572162>
13. Kaarsholm, H.M., Verland, N., Nørregaard, R.D., Bach, L., Søndergaard, J., Rigét, F.F., Dietz, R., Hansen, M., Eulaers, I., Desforges, J.P., Leifsson, P.S., **Dang, M.**, Nowak, B., Sonne, C., **2018**. Histology of Sculpin spp. in East Greenland. II. Histopathology and trace element concentrations. Toxicol. Environ. Chem. 100, 769–784. <https://doi.org/10.1080/02772248.2019.1579992>
14. **Dang, M.**, Basson, L., Bach, L., Sonne, C., Nørregaard, R., Nowak, B., **2018**. Trichodinid infections in internal organs of shorthorn sculpin (*Myoxocephalus scorpius*) collected around an industrial harbor in Nuuk, Greenland. Parasitology 1–5. <https://doi.org/10.1017/S0031182018001774>
15. Nørregaard, R.D., **Dang, M.**, Bach, L., Geertz-Hansen, O., Gustavson, K., Aastrup, P., Leifsson, P.S., Søndergaard, J., Nowak, B., Sonne, C., **2018**. Comparison of heavy metals, parasites and histopathology in sculpins (*Myoxocephalus* spp.) from two sites at a lead-zinc mine in North East Greenland. Environ. Res. 165, 306–316. <https://doi.org/10.1016/j.envres.2018.04.016>
16. **Dang, M.**, Nørregaard, R., Bach, L., Sonne, C., Søndergaard, J., Gustavson, K., Aastrup, P., Nowak, B., **2017**. Metal residues , histopathology and presence of parasites in the liver and gills of fourhorn sculpin (*Myoxocephalus quadricornis*) and shorthorn sculpin (*Myoxocephalus scorpius*) near a former lead-zinc mine in East Greenland. Environ. Res. 153, 171–180. <https://doi.org/10.1016/j.envres.2016.12.007>
17. Lettini, A.A., Vo Than, T., Marafin, E., Longo, A., Antonello, K., Zavagnin, P., Barco, L., Mancin, M., Cibin, V., Morini, M., **Dang Thi Sao, M.**, Nguyen Thi, T., Pham Trung, H., Le, L., Nguyen Duc, T., Ricci, A., **2016**. Distribution of Salmonella Serovars and Antimicrobial Susceptibility from Poultry and Swine Farms in Central Vietnam. Zoonoses Public Health n/a-n/a. <https://doi.org/10.1111/zph.12265>
18. Vo T. T., Pham T. H., Dao D. H., Dang V. T., Le D. H., Nguyen T. T., **Dang T. S. M.**, Le L. **2014**. Determination of serovar and genetic relationship of *Leptospira* strains isolated from pigs. Journal of Veterinary Science and Technology, 4 (1), 34 – 38 (in Vietnamese)
19. **Dang T. S. M.**, Nguyen H. D., Nguyen T. M. A., **2009**. Using histology to investigate the development of thymus in barramundi (*Lates calcarifer*). Scientific Journal of Cantho University (in Vietnamese).

**Books and book chapters**

* Phan-Van, U., **Dang, M**. **2021**. Part III: Regional Reviews: Asian (excluding China). In Poynton, S., Nowak, B. (Ed.). Aquaculture Parasitology: Global impacts and Management. John Wiley & Sons Limited, UK.

**Conferences**

1. Histological mucous cell quantification and mucosal mapping reveal different aspects of mucous cell responses in the gills of shorthorn sculpins. Oral presentation at the International gill health conference, **2021** (online).
2. Quantified mucosal health of fishes: the proposed “rules”. 1st International Symposium on Mucosal Health **2019** in Aquaculture, MHA2019, September 11-13, Oslo, Norway
3. Interactions between parasites, heavy metals & mucous cell responses in shorthorn sculpins (*Myoxocephalus scorpius*) - Oral presentation at Australian Society of Parasitology (ASP) annual conference **2019**, Adelaide, Australia
4. Characterisation of melanomacrophage centres in shorthorn sculpins (*Myoxocephalus scorpius*) – Oral presentation at [Society of Environmental Toxicology and Chemistry (SETAC Europe Helsinki May 2019)](https://www.setac.org/)
5. Trichodinid infection in internal organs of shorthorn sculpin (*Myoxocephalus scorpius*) collected around an industrial harbour in Nuuk, Greenland – Oral presentation at Australian Society of Parasitology (ASP) annual conference **2018**, St. Kilda. Melbourne, Australia
6. Quantification of histological changes & image analysis – Oral presentation at the annual Fish Histopathology workshop **2018**, Launceston, Australia
7. Trichodina in the kidney of wild shorthorn sculpin (*Myoxocephalus scorpius*) from Greenland– Oral presentation at the EAFP Fish Histopathology workshop **2018**, Belfast, UK
8. Parasites in shorthorn sculpin (*Myoxocephalus scorpius*) and potential use of these parasites as bioindicators – Oral presentation at ASP annual conference **2017**, Blue Mountains, Australia
9. A histological investigation of fourhorn sculpin (*Myoxocephalus quadricornis*) and shorthorn sculpin (*Myoxocephalus scorpius*) in Mestersvig, East Greenland – Oral presentation at ASP Tasmania meeting **2016**
10. Ciliates in East Greenland sculpin – Oral presentation at the Fish Histopathology workshop **2015**, Launceston, Australia
11. OIE twinning project for animal Salmonellosis between Central Vietnam Veterinary Institute (CVVI) and Instituto Zooprofilattico Sperimentale delle Venezie (IZSVe, Italy) – Poster presentation at International Symposium of the World Association of Veterinary Laboratory Diagnosticians (ISWAVLD) **2013**, Berlin, Germany

**Awards and Grants**

**Awards**

* The annual IVRD Director Award for Outstanding researcher (2020 and 2021)
* CoSE Executive Dean Award, Outstanding Performance by Current HDR Candidate, Runner-up (2019)
* Tasmania Graduate Research Scholarship (2016)
* Australian Award Scholarship (2013)
* Vietnam Fund for Supporting Technological Creation (VIFOTEC) bronze award (2009)
* National award for undergraduate research, awarded by the Ministry of Education and Training, bronze award (2009)
* University award for undergraduate research awarded by Nha Trang university, gold award (2008).

**Grants**

* Travel grants from the Australian Society for Parasitology (2017 – 2019)
* Travel grants from the College of Sciences and Engineering (2019)
* Travel grants from Institute for Marine and Antarctic Studies (2019)
* Travel grants from the Fisheries Society of the British Isles (2019)
* The IMAS student research support (2018)
* JD Smyth Postgraduate Travel Award for research and training (2017)