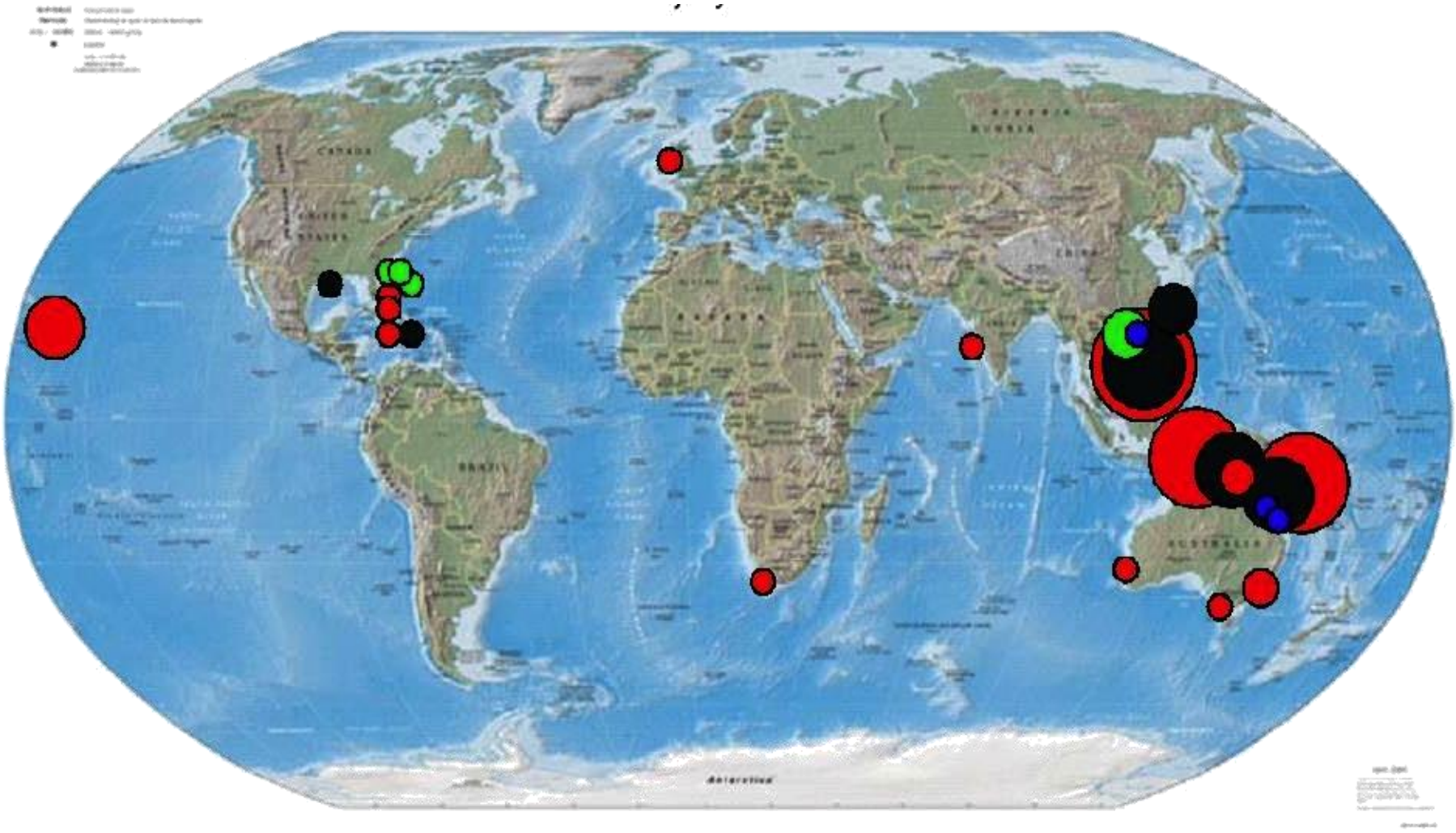
กรมทรัพยากรทางทะเลและชายฝั่ง
DEPARTMENT OF MARINE AND COASTAL RESOURCES

Thai water box jellyfish: species identification, venom biochemistry and toxinological responses

Nuankanya Sathirapongsasuti, M.D., Ph.D.

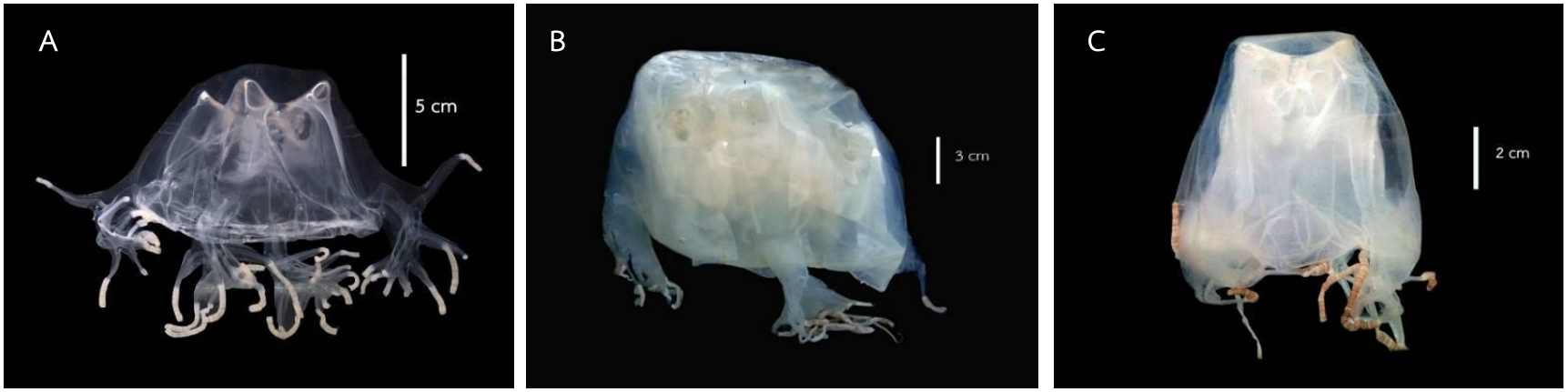
Program in Translational Medicine
Office of Research, Academic Affairs and Innovations
Faculty of Medicine Ramathibodi Hospital, Mahidol University

Indo-Pacific Hot Spots for Lethal and Life Threatening Stings



Angel Yanagihara

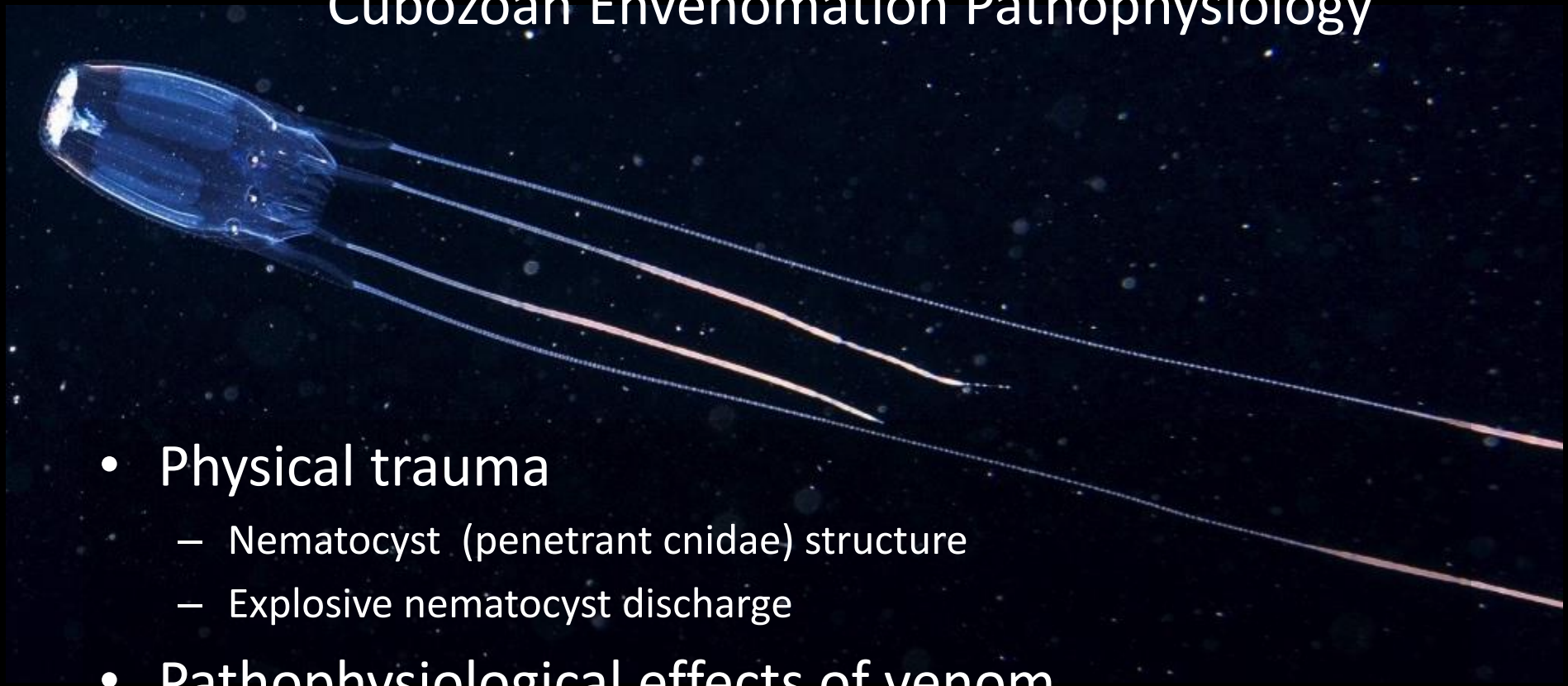
Thai water box jellyfish



แมงกะพรุน (A) *Chironex* sp. A (B) *Chironex* sp. B และ (C) *Chironex* sp. C

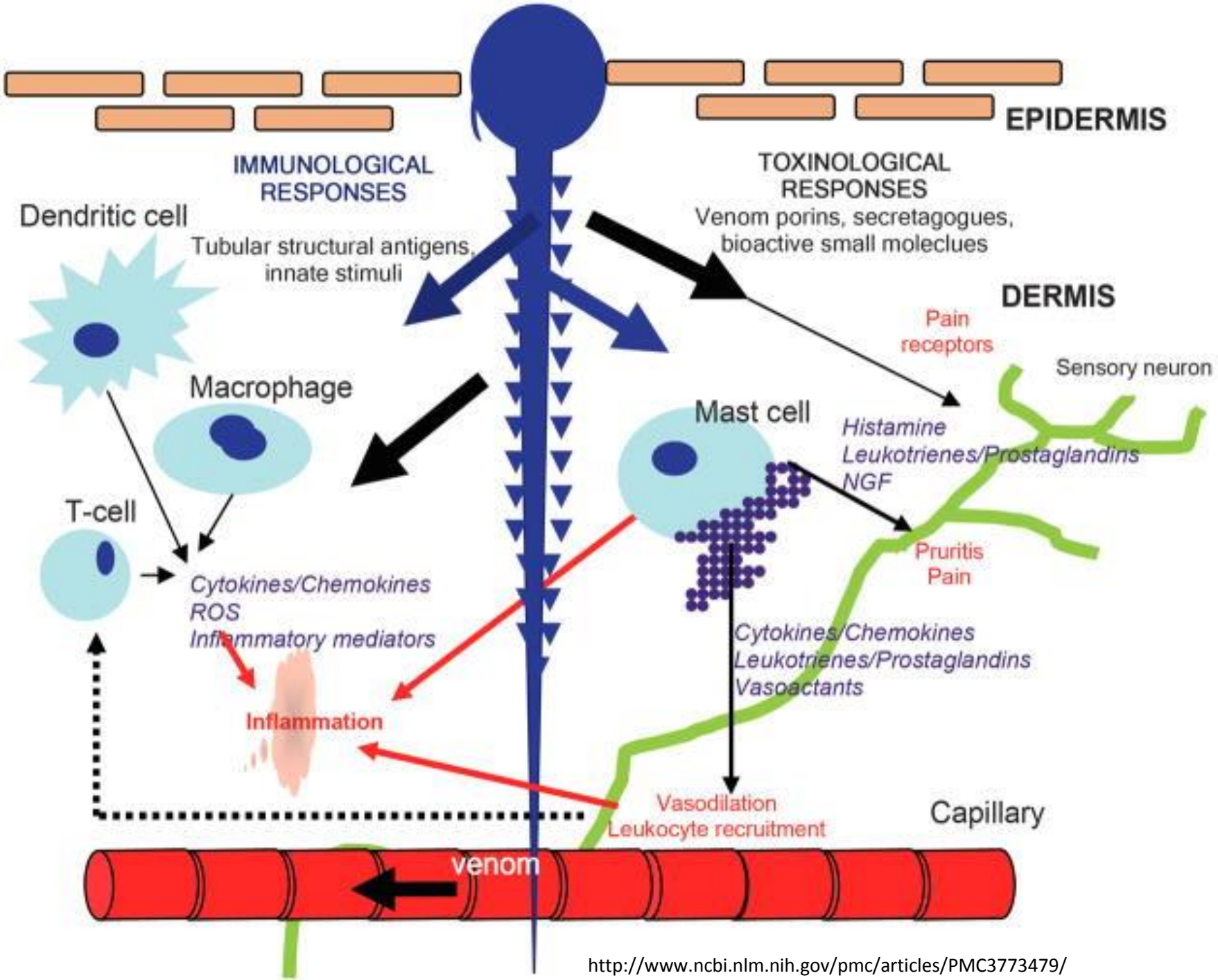
ตัวอย่างแมงกะพรุน ศวทล (A) *Morbakka* sp. A (B) *Morbakka* sp. B (C) *Morbakka* sp. C

Cubozoan Envenomation Pathophysiology



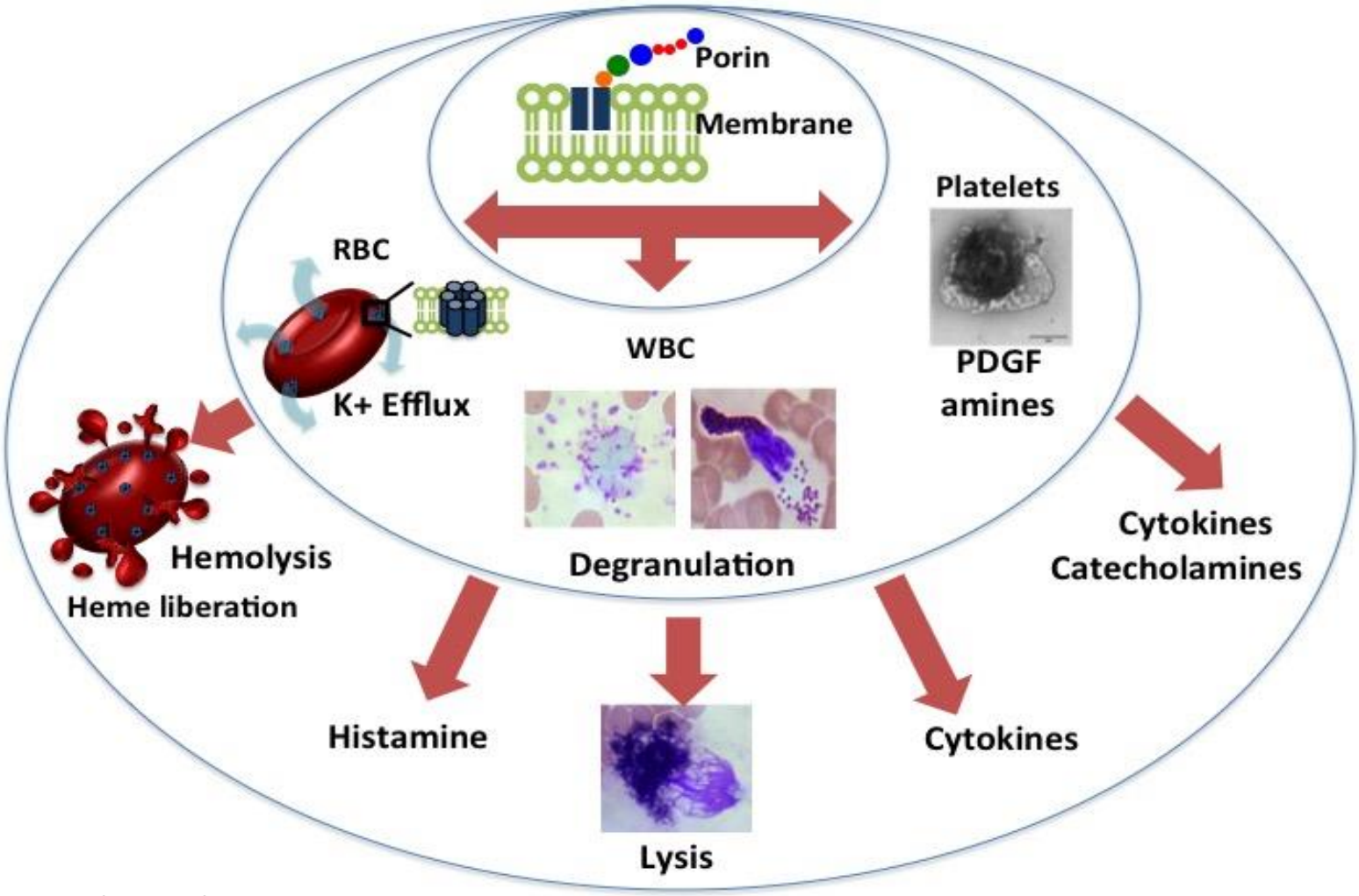
- Physical trauma
  - Nematocyst (penetrant cnidae) structure
  - Explosive nematocyst discharge
- Pathophysiological effects of venom
  - 1^{o} Rapid Porin related cell and tissue effects
  - 1^{o} Slower protease and lipase effects
  - 2^{o} Effects of acute phase host response species

Photo Credit Angel Yanagihara



http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3773479/

Hypothetical Model Based on *in vitro* Hematologic and *in vivo* Data



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nuankanya.sat@mahidol.ac.th