

Toward a researcher who can contribute to

One Health



Pondpan SUWANTHADA (Moss), DVM

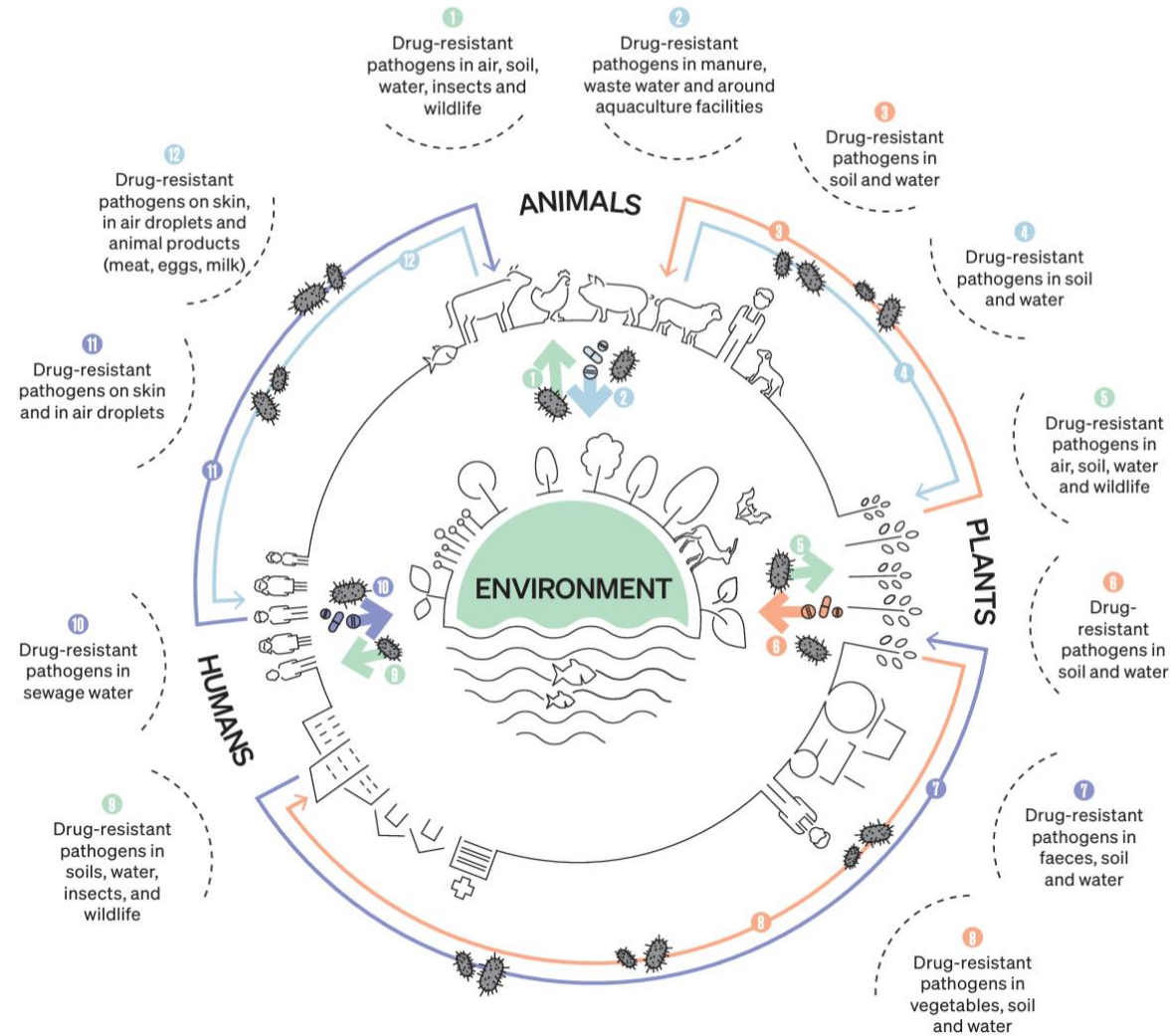
- 2013 – 2019** Kasetsart University,
Faculty of Veterinary Medicine, Thailand
- 2019 – 2020** Small Animal Veterinarian,
Paknam Animal Hospital, Thailand
- 2020- Present** PhD student, Division of Bioresources,
Graduate School of Infectious Diseases



Study on the drug resistant mechanism in Salmonella

Drug resistant mechanism in *Salmonella*

Misuse and overuse of antimicrobials can generate antimicrobial resistance. Drug-resistant pathogens can then spread between and within animals, humans, plants and through the environment.



ONE HEALTH

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**How can we equip ourselves
to become researchers who
can contribute to
One Health?**

My recent experience

Bio-SPM (Scanning Probe Microscopy)
Visualizing nano-scale structures
and dynamics of living cells



11th KANAZAWA UNIVERSITY WPI-NanoLSI

Bio-SPM SUMMER SCHOOL 2023

You can learn how the world's most advanced Bio-SPMs work and how to operate them, and experience the observation of standard samples and your own brought-in material.

Mon., Aug. 28 - Sat., Sep. 2 2023

Free of charge Participation Capacity approx. 20 persons

Atomic resolution/3D-AFM
Absorber F water
T. Fukuma et al. *Phys. Rev. Lett.* 2010

High Speed-AFM
20 Fm
N. Kikkawa et al. *Nature* 2010

SICM
100 pm
T. Takahashi et al. *Angew. Chem.* 2012

Cell Measurement AFM
M. Percec et al. *Sci Adv* 2012

Subject young researchers and students interested in observing your own samples with cutting-edge Bio-SPM.

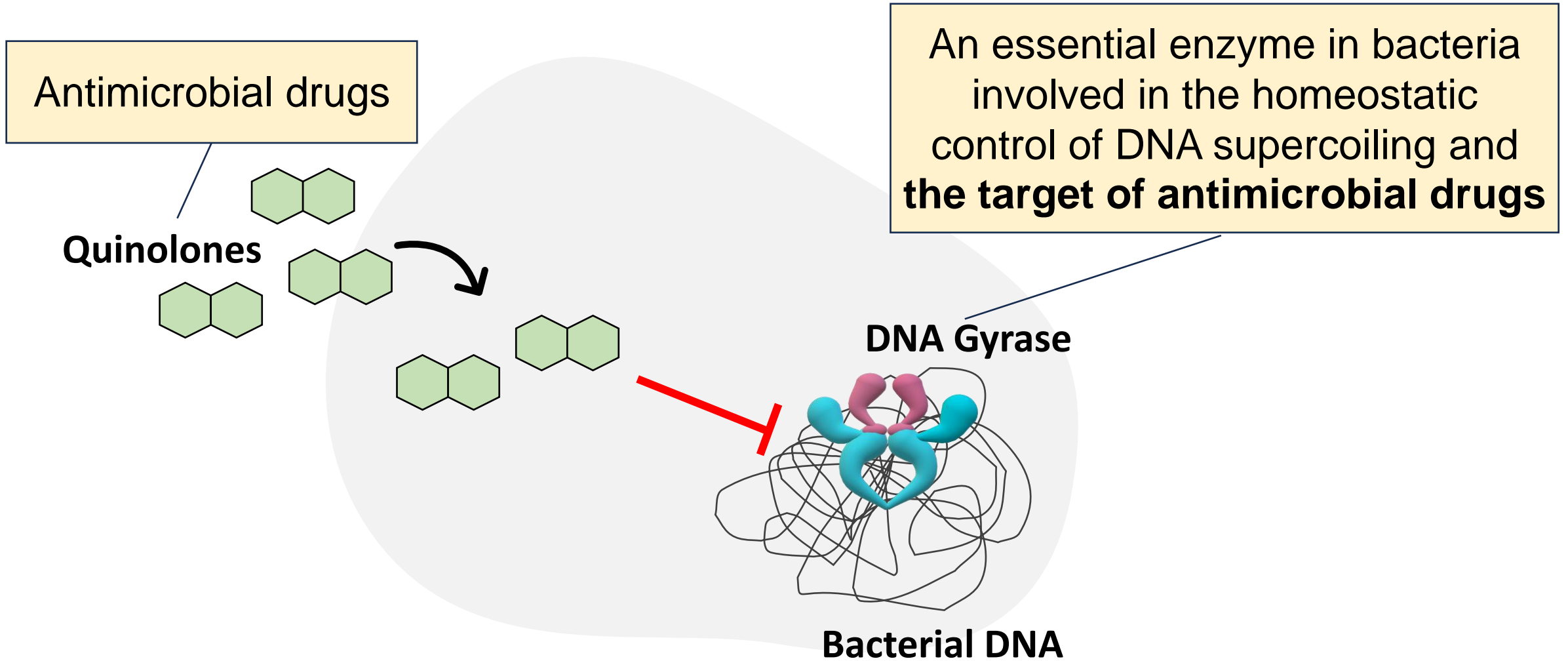
Venue Kakuma Campus, Kanazawa University

Bio-SPMs
○Atomic Resolution/3D-AFM
○High-Speed AFM
○Scanning Ion Conductance Microscopy
○AFM for Cell Measurement

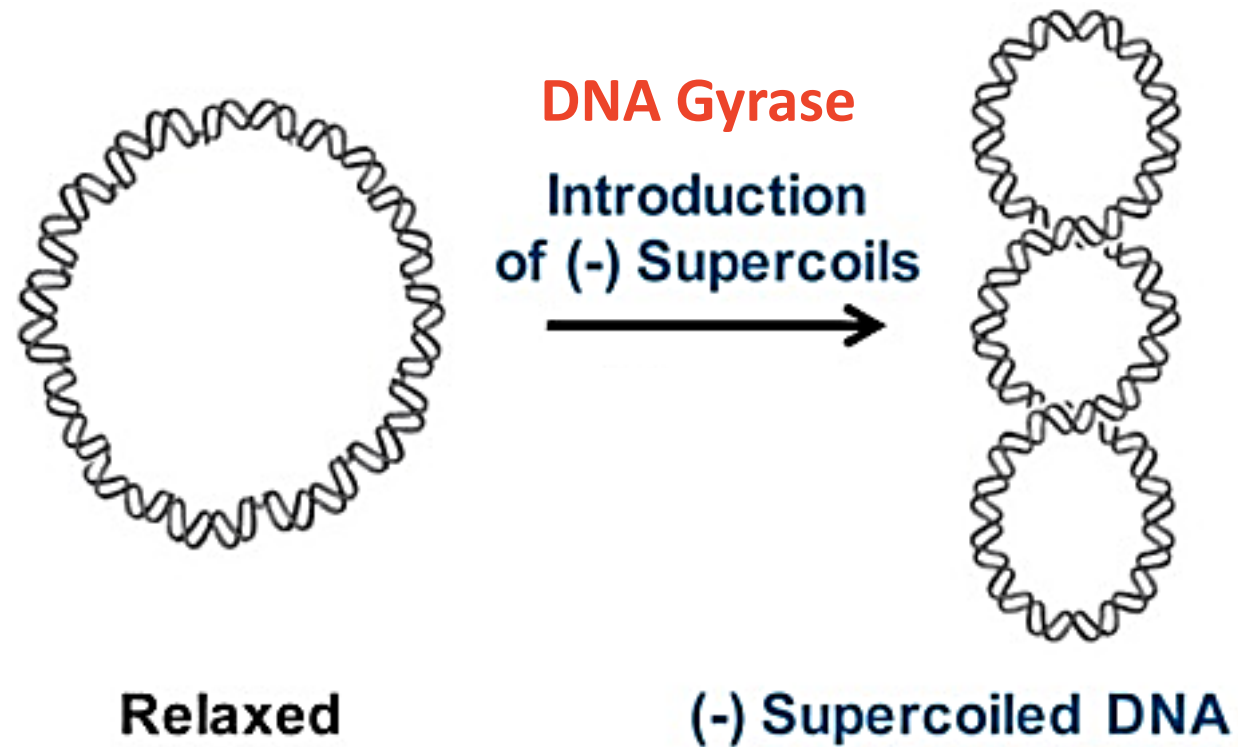
Application Deadline Mon., May 15, 2023 Nano Life Science Institute, Kanazawa University. <https://nanolsi.kanazawa-u.ac.jp/research/applications/summerschool>

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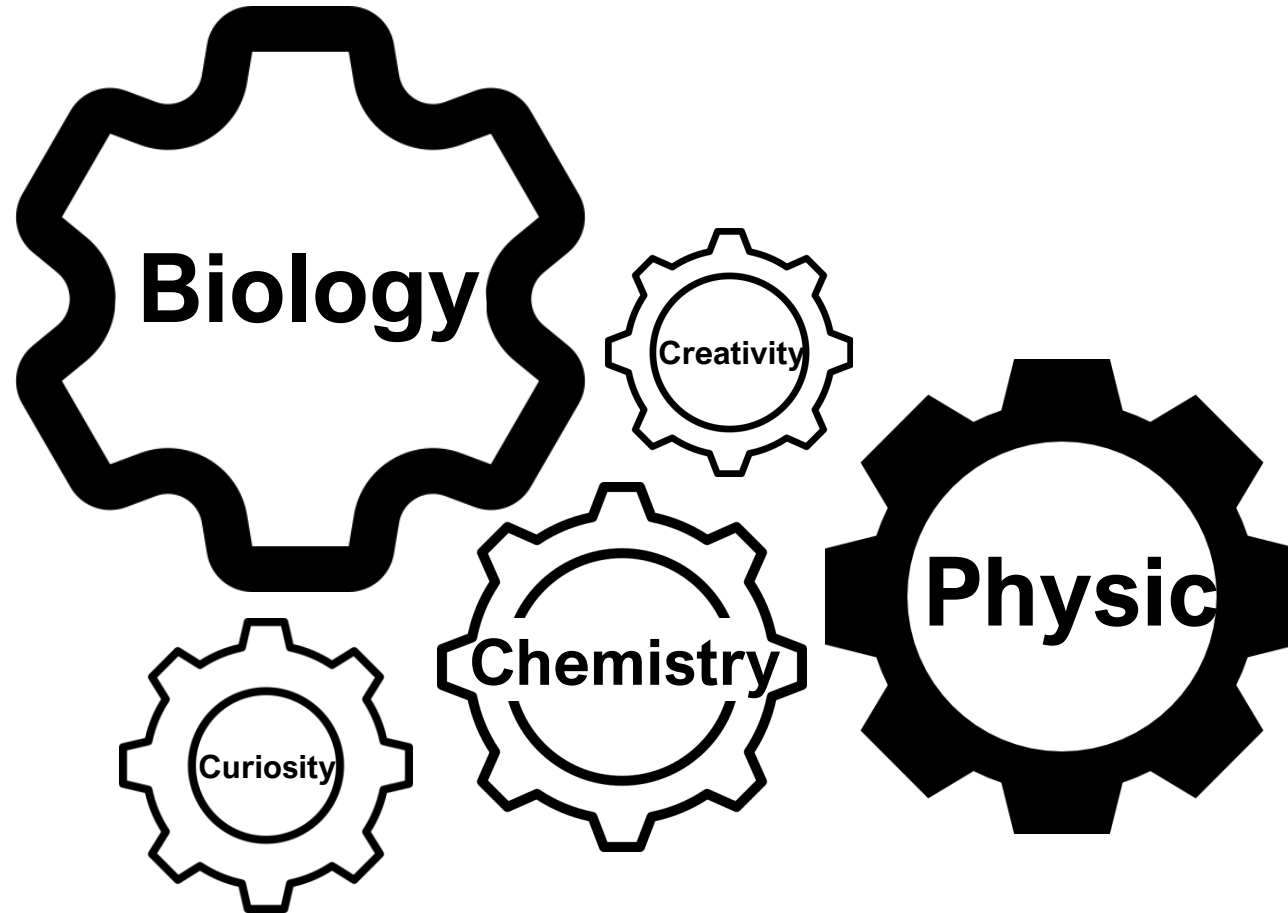
Quinolone-resistant mechanism in *Salmonella*



Quinolone-resistant mechanism in *Salmonella*



No one has ever seen it working before!!



***Good example of collaboration toward
One Health***

**“We build too many walls
and not enough BRIDGES.”**

Thank you!