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Title	Emerging & Re-Emerging Infectious Diseases : How to Fight against Them?
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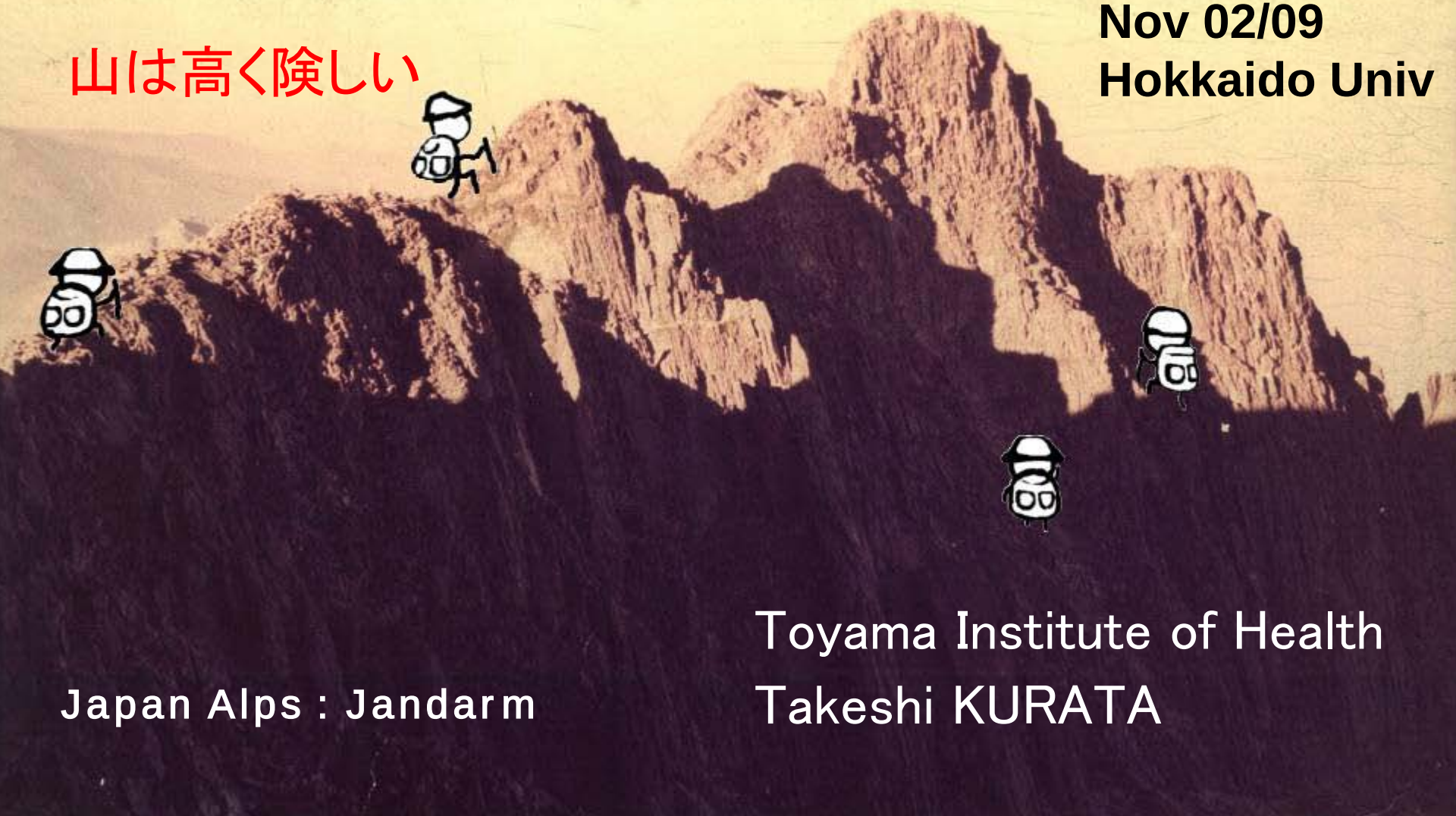
Emerging & Re-Emerging Infectious Diseases
– How to Fight against Them ? –

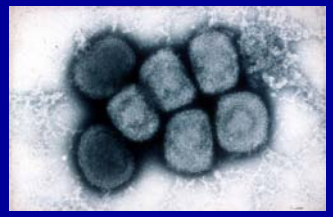


Nov 02/09
Hokkaido Univ

Japan Alps : Jandarm

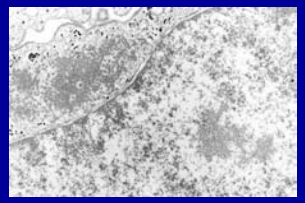
Toyama Institute of Health
Takeshi KURATA

WHO/Eradication Program



Small pox (Variola)
1967~1980

Polio (1989~)
No hope at a moment



Measles
(after Polio Eradication)

※ Human to Human Infection without Intermediate Hosts.

Ⅰ. Emerging Infectious Diseases

More than 30 viral diseases

More than 15 Bacterial & Paracytic Diseases

Ⅱ. Re-Emerging Infectius Diseases

At a moment, No hope to be eradicated

Rabies, Yellow Fever, Malaria, TB, Influenza, Dengue Fever/HF, Westnyle Fever, etc etc etc

Recognition of a New Disease

→Discovery→Control

Nearly All of the Emergent Disease Episodes Have Involved Zoonotic Infectious Agents.

Transmission of the Etiologic Agent to Human from an Ongoing Reservoir Life Cycle in Animals or Arthropods Without Establishment of a New Life Cycle in Humans.

No way to predict

When or

Where

The Next Important New Zoonotic Pathogen will Emerge.

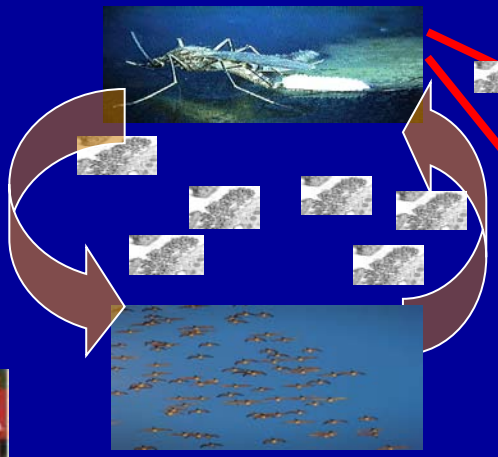
Emergence of Zoonotic Diseases

1. Exemplified by Arbovirus Diseases
2. Venezuelan Equine Encephalitis
3. Equine Morbillivirus Outbreak (Australia)
4. Lassa Fever
5. Ebola Hemorrhagic Fever
6. Rabies
7. Hanta Virus Pulmonary Syndrome
8. SARS
9. BSE in Cattle & New v CJD
10. Influenza - Avian derived
11. etc etc etc etc etc etc etc etc etc

Pathogen Hunting in Nature

Active Program in Zambia And Other Countries For Hunting Pathogens at Natural Reservoir by Hokkaido University Zoonosis Research Center

—The Trial is Quite Unique and Important



CDC

Transmission of BSE

BSE

vCJD

Hunting Targets
??????????????
Unknown Resevoir

We Wish Success of Hunting Activity at Zoonosis Research Center, Hokkaido University