

New Horizons In Emergency MedicineWithout Boundaries !

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Overview

- Emergency Medicine Today
- Emergency Medicine Next Steps
- Emergency Medicine Positioning
- Questions

Key Words

- New Horizons
- Emergency Medicine
- Boundaries

Complex Comet Care

- Emergency Department Volumes
- Volumetric Rise of Technology
- **Recording, Transfer, Analysis, Action**

The Care Team

- Physicians : Emergency, Stroke, Critical Care, Toxicologists & Infectious
- Trauma Surgeons : Acute Care ; Neurosurgeons ; Orthopedics, Plastics
- Nurses: All Levels
- Mid Levels: PA ; ARNP
- Medics: Pre Hospital & Hospital
- Administrators: Health System, Regional and International
- Technologists: IT, Biomedical and System Drivers

The Beneficiaries

- Patients
- Public
- Profiteers
- Policy Makers

Compare

Universe

- Earth
- Water
- Sky
- Air
- Fire

Emergency Medicine

- Education
- Research
- Patient Care
- Policy
- Public Health

Emergency Medicine Today

- We have evolved over half a century
- Across the world we continue to develop
- **LEAP Frog** & Cultural Challenges Continue

LEAP Frog & Cultural Challenges

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The m-Health revolution: Exploring perceived benefits of WhatsApp use in clinical practice.

Ganasegeran K, Renganathan P, Rashid A, Al-Dubai SA.

High Alt Med Biol. 2019 Mar;20(1):22-27. doi: 10.1089/ham.2018.0102. Epub 2018 Dec 8.

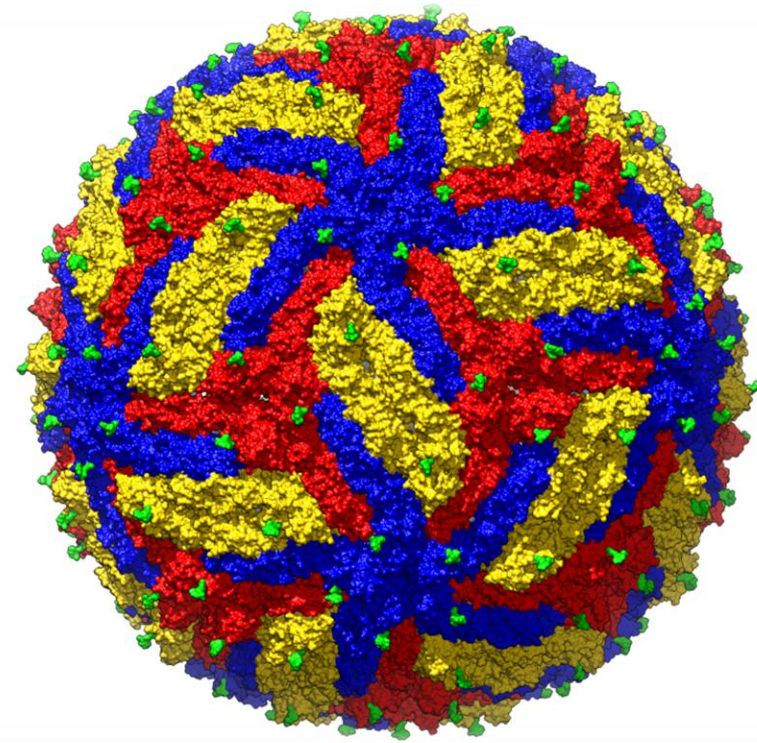
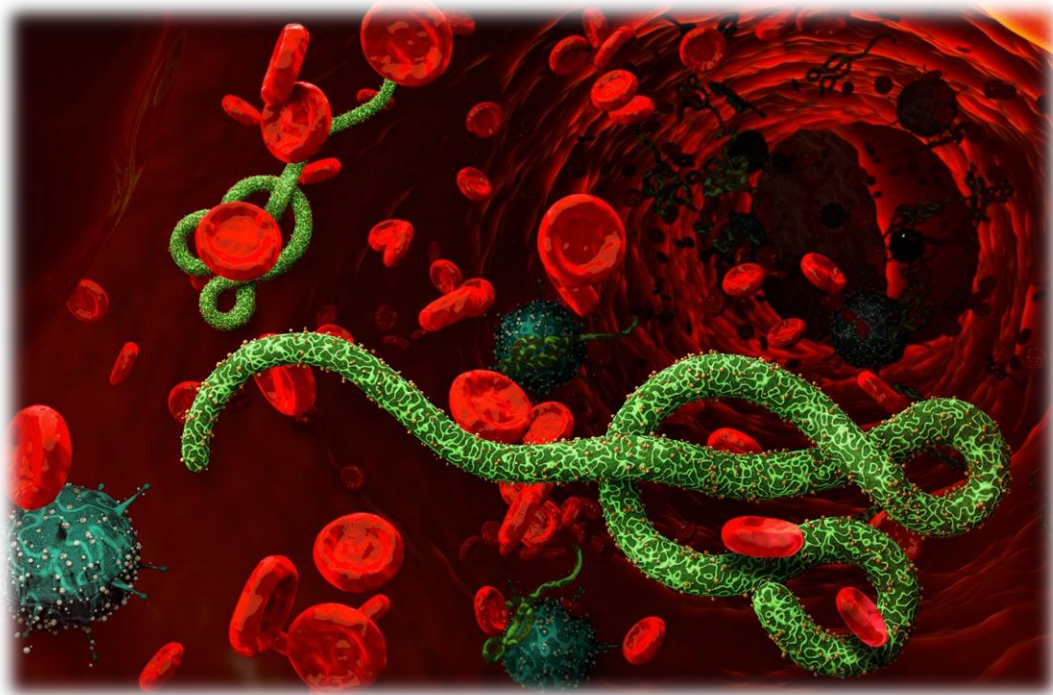
Intercultural Competence of Western Teachers for Nepalese Rescuers.

Brodmann Maeder M, Saghir R, Pun M, Stawinoga AE, Turner R, Strapazzon G, Exadaktylos AK, Brugger H.

Conventional EM Boundaries

- **Academic:** Training, Innovation, Clinical Therapy
- **Practice:** Providers , Pre-Hospital
- **Global:** International Emergency Medicine
- **Policy:** Hospitals, Transport, FSD, National, International

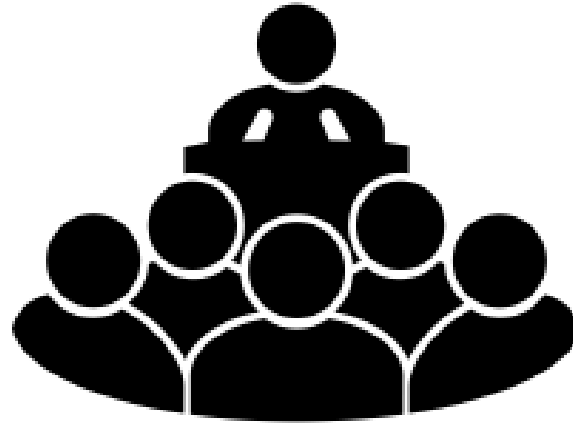
Boundaries



Preparedness & Performance

- [J Glob Infect Dis.](#) 2016 Jan-Mar;8(1):3-15. doi: 10.4103/0974-777X.176140. *The Emergence of Zika Virus as a Global Health Security Threat: A Review and a Consensus Statement of the INDUSEM Joint working Group (JWG).* [Sikka V](#), [Chattu VK](#), [Popli RK](#), [Galwankar SC](#), [Kelkar D](#), [Sawicki SG](#), [Stawicki SP](#), [Papadimos TJ](#).
- [J Glob Infect Dis.](#) 2015 Oct-Dec;7(4):127-38. doi: 10.4103/0974-777X.170495. *The Ebola Outbreak of 2014-2015: From Coordinated Multilateral Action to Effective Disease Containment, Vaccine Development, and Beyond.* [Wojda TR](#), [Valenza PL](#), [Cornejo K](#), [McGinley T](#), [Galwankar SC](#), [Kelkar D](#), [Sharpe RP](#), [Papadimos TJ](#), [Stawicki SP](#).

Triad of Trends



01.2019

NATIONAL GEOGRAPHIC

*The cells of
a patient's heart,
lungs, liver, kidney,
brain—you name it—
can be replicated
on this chip to help
researchers develop
individualized
treatments.*



THE
FUTURE
OF

MEDICINE

HOW NEW TECHNOLOGIES AND ANCIENT REMEDIES
ARE TRANSFORMING HEALTH CARE

Sum Total

- Technology Will Drive Transformation
- Traditional Medicine Will Interface with Transformation
- Blood may not remain the only detection gateway
- From NanoDetection to NanoTherapy Nano will Drive everything
- Data Volume will Drive Virtual Decisions
- **THERE ARE NO BOUNDARIES**

EMNext TOP 10

1. Point of Care Precise Personalized Emergency Care (POCPPEC)
2. Big Data Decisions
3. Artificial Intelligence / Virtual Reality / Robotics
4. Self Care Before Health Care
5. Transnational Traditional Translation
6. Preparedness Performance Policy and Physicians
7. NanoMedicine
8. Devices and Tools for Augmenting Survival
9. Intermingling & Churning of Competencies
10. Communication Technology

Robotics



Realities & Projections



Current Tide

*J Trauma Acute Care Surg. 2019 Feb .**The Promising Future of Drones in Prehospital Medical Care and its Application to Battlefield Medicine.** Braun J, Gertz SD, Furer A, Bader T, Frenkel H, Chen J, Glassberg E, Nachman D.*

*Resuscitation. 2018 Jun;127:119-124. doi: 10.1016/j.resuscitation.2018.04.011. Epub 2018 Apr 14. **End-tidal CO₂-guided automated robot CPR system in the pig. Preliminary communication.** Suh GJ, Park J, Lee JC, Na SH, Kwon WY, Kim KS, Kim T, Jung YS, Ko JI, Shin SM, You KM.*

Next Steps

- *Moukaddam N, Tucci V, **Galwankar S**, Shah A. In the blink of an eye: Instant countertransference and its application in modern healthcare. J Emerg Trauma Shock 2016;9:95-6*
- *Am J Emerg Med. 2019 Apr;37(4):744-745. doi: 10.1016/j.ajem.2018.11.032. Epub 2018 Nov 23. **The importance of developing global emergency medicine research network.** Mahajan P, Visclosky T, Bhoi S, **Galwankar S**, Kuppermann N, Neumar R.*

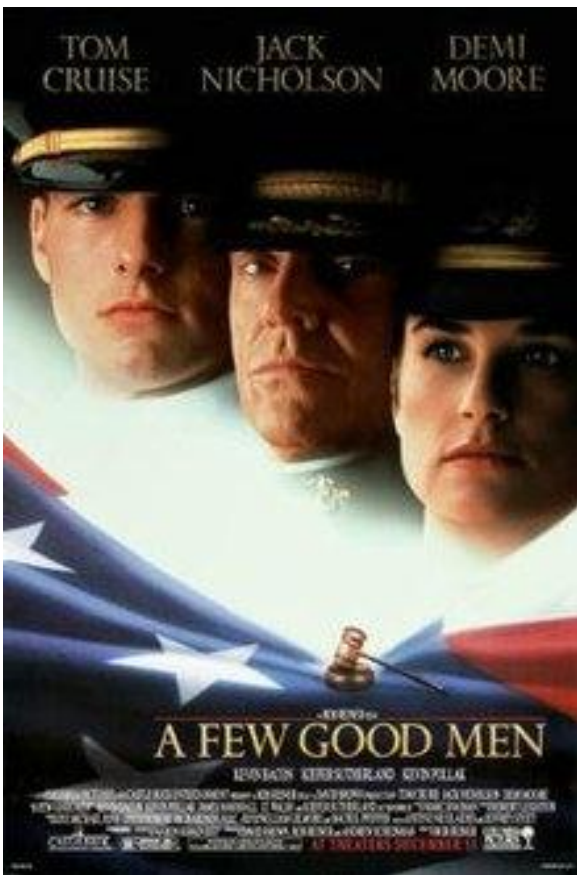
"If you can only read one book on the future of our species, this is it."

—SANJAY GUPTA, MD



GENETIC ENGINEERING
and the **FUTURE of HUMANITY**

JAMIE METZL





The World Academic Council of Emergency Medicine



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“Never Doubt That A Small Group of Thoughtful, Committed People Can Change The World.

Indeed, it is the only thing that ever has !”

Margaret Mead



Credits

- *PBS Images*
- *Noun Project*
- *Sanford Health*
- *Harvey*
- *Phys.org*
- *Wikipedia*
- *EPAT*
- *Citiskylines.org*
- *Edcsarasotacounty.com*
- *Unclebob Hong Kong Robot*
- *National Geographic*
- *Healthadvanceblog.com*
- *Money.cnn.com*



EPAT

Emergency Physicians Association of Turkey

Thank You

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