The International Cancer Expert Corps*:
A Peace Corps for Oncology

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*ICEC is not for profit entity and not part of the US Government.
This presentation is the opinion of the presenters and does not represent NCI, NIH, DHHS or the Federal Government.

The International Cancer Expert Corps:
a unique partnership to addressing cancer care for the underserved worldwide

BrachyNext
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Disclosures

C. Norman Coleman, MD, does not have any financial relationships or products or devices with any commercial interest related to the content of this activity of any amount during the past 12 months.

Non-governmental organization (NGO)
WHO Global Burden of Disease

DIRAC (Directory of RAdiotherapy Centres) – IAEA
http://www-naweb.iaea.org/nahu/dirac/

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The Generic Challenges in Moving to Just Health Care: “Public Health Oncology”*

- Weak underlying health systems
- Financing - for infrastructure and staff
- Transparency
- Governance (selecting right people)
- Workforce (manpower) - capacity and capability
- Incomplete knowledge about diseases, patient/host factors and cost-effective interventions
- Sustainability
- “Brain-drain” from resource-poor to resource-rich
- Top-down approaches from developed nations often not applicable to the local situation

MISSION of ICEC

The mission of the International Cancer Expert Corps (ICEC) is to reduce mortality and improve the quality of life for populations with cancer in low- and middle-income countries (LMIC) and regions worldwide.

The ICEC will address this mission through a mentoring network of cancer professionals who will work with local and regional in-country groups to develop and sustain expertise for better cancer care.

Goals (1)

• **Build capacity and capability** to reduce the burden of cancer through mentoring local champions so they can conduct stage- and region-appropriate protocols

• **Mentoring** - some on-site visiting, mostly through weekly teleconferencing using carefully crafted “bottom up/top-down” multi-year plans so Centers in LMICs could join the international community of clinical and translational research
**Goals (2)**

- **Implementation science**: Innovative approaches to cancer health disparities built on person-to-person sustainable mentoring and shared among projects.

- **Cultural change, big vision, and sustainable accomplishments**: Multinational partnership would create a *critical mass and spectrum of experts*, increase the likelihood of success, allow rapid response to opportunities, and demonstrate the value of altruistic service.

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**ICEC functional construct**

- ICEC Board of Directors
- ICEC Operations Core
- Other standing committees
- Associates in ICEC Centers
- Hubs
- Experts
- Linked by TELESYNERGY
- Senior associates
- ICEC Central
- Expert panels
- Junior Assoc.
- Int’l hubs
- Cancer organiz
- Assoc in training
- Domestic hubs
- Prof society, univ, industry sponsors
ICEC – From Application to Senior Associate and ICEC Center That Serves its Region and World

0. Application by Associate for ICEC-Center membership

1. Associate-in-training, building ICEC Center

2. Junior Associate

3. Senior Associate and ICEC Center

On-site visit/plan development

Implement a multi-year plan

Ongoing assessment: milestones, and modifications

Experts assigned per multi-year plan

ICEC Center becomes regional hub

Attain "cooperative group" quality

Quality assurance reviews

Experts added and modified per multi-year plan, as needed

ICEC – What it Would Uniquely Accomplish

Multi-national corps of experts, ready for assignment

Coordination and pooling of efforts, protocols, SOPs

Innovative approaches: capacity and capability-to change outcomes

Critical mass & international teams. Visible, effective

Experts from Hub 1

ICEC Center 1A & project

ICEC Center 1B & project

Hub 1

ICEC Center 2A & project

ICEC Center 2B & project

Hub 2

ICEC Center 3A & project

ICEC Center 3B & project

Hub 3

Experts from Hub 2

Experts from Hub 3

• Reduced burden of cancer
• Shared results and approaches
• Bona fide academic accomplishment
• Innovative social and business models
• Effective place to attract investment
• Career path for individuals
• Sustainable overall program in long-term
**Project Evolution**

- **Start with and build on ongoing projects** of initial Hubs (1-2 per hub) and *provide multi-national mentors* and some support for Associate
- **Focus on a few diseases and expert panels** - build capacity and experience. Build in some onsite visits and partnership building - but time will be primarily weekly QA – teaching rounds
- **Education and training** - build from ongoing programs; add sustainability concepts
- **Pilot career path** with a few universities

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**ICEC Expert Panels: Public Health Oncology With Broad Spectrum of Expertise**

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<th>Support</th>
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<td>Medical physicists</td>
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<td>Basic &amp; translational scientists</td>
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<td>Radiologists</td>
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<td>Surgical subspecialists</td>
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Underpinning – Ideas

Leading people and concepts

• **Nigel Crisp** “Turning the World Upside Down” - what developed world can learn (and do)
• **Clayton Christensen** - “Innovator’s Prescription” - healthcare delivery models (“Innovator’s DNA” - disruptive innovators)
• **Health-related NGOs** e.g., Doctor’s without Borders, Partners-in-Health, etc: ICEC can add model of sustainability

Addressing challenges

• Can you treat cancer for a dollar a day? (NEJM, 2010 D. Kerr)
• An international service corps for health (NEJM, 2010, Farmer)
• Public health oncology (Ann Oncol, 2013, Love)
• Non-communicable diseases (NEJM, D. Hunter, 2013)
• Health care systems in LMICs (NEJM, A. Mills, 2014)

Creating a Novel Approach to a Problem That Is Often Considered “Too Hard”

• It is about people - many want to do this but can’t due to institutional priorities and values
• Critical mass - more efficient, effective and visible-service, shared efforts
• Broad range of experts working together
• Sum is greater than parts - bring world together for some common good against a common enemy
• *So successful no one would want it to fail!*
• **It can be lead by radiation oncology**
The Benefits to Science and Scientists & Clinicians

- **Implementation science** - *no one has solved this problem*. Complex system collaboration among countries and disciplines
- **Translational research** - studying unique tissue sets that benefit people and science
- **Economics** - develop sustainable solution through new models and large network
- **Alpha, Omega and Psi (sustain) of careers** - inspire and sustain newcomers (α), utilize expertise of retirees as mentors and teachers (Ω) and create sustainable career path (ψ)

**ICEC: Current Steps**

ICEC- Non Gov’t Organization, not-for-profit [IRS 501 (c) 3]
- Each country would work within its financial and tax structure

**NCI & NIH and US academia**
- Working with Center for Global Health (in-kind help, no USG $)
- Working with Consortium of Universities for Global Health

**Partnerships and funding**
- Seeking $1-2M per year *(including committed in-kind time)*: infrastructure ~$2M= 600k; $1.4 M for ~5 FTEs of Experts *(using maximum NIH FTE rate, and individual experts 20% time commitment.)*
- Begin with ~6 pilot projects and 6-8 Expert panels across ICEC
- Approximate cost per mentored ICEC Center- ~$500k/year (but much will likely be in-kind and “matching 10% for 10%”)
Project Evolution

- Hub committee
- Expert panels
  - Focus on a few diseases
  - Career path & metrics
- ICEC Centers and Associates
- Education and training
- Development and outreach
- Information tech and info management
- Industry-technology

Build capacity for sustainable health initiatives - with world class, region appropriate quality care and research

Save lives and reduce the burden of cancer for health disparities populations

Increase participation and diversity in protocol-based care and clinical trials

Develop ICEC centers of excellence to train and retain talented individuals in health disparities regions

New career path for a medical career in global health and service to the underserved

“Create” and sustain a critical mass of well trained physicians, clinical, biomedical and implementation scientists and health care workers

International knowledge and person-to-person mentoring and capacity building network. Address the challenging issues of the burden form non-communicable diseases
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*Non-governmental organization (NGO)