



**TRIPLE  
HELIX**  
**RESEARCH+  
NURSING+  
INNOVATION:  
THE TRIPLE  
HELIX**

Dr. Judith Shamian  
27<sup>th</sup> ICN President (2013-2017)  
ICN President Emerita  
Twitter: @judithshamian

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<p><b>1</b></p> <p>Build awareness to accelerate knowledge transfer and integration in the spheres of policy, health system, and practice</p>	<p><b>2</b></p> <p>Build awareness of the need to engage in global, national and local levels for the integration of knowledge and decision making</p>	<p><b>3</b></p> <p>Build awareness of the role on nursing science in the field of innovation and start ups.</p>
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**WHAT DID WE BUILD IN THE LAST 50+ YEARS IN NURSING, RESEARCH AND INNOVATION?**

**WHO DID WE TAKE OR DIDN'T TAKE WITH US ON NOAH'S/NURSING ARK?**

**WHERE HAVE WE LANDED?**

**WHAT SHOULD WE BUILD NEXT? OVER THE RAINBOW**



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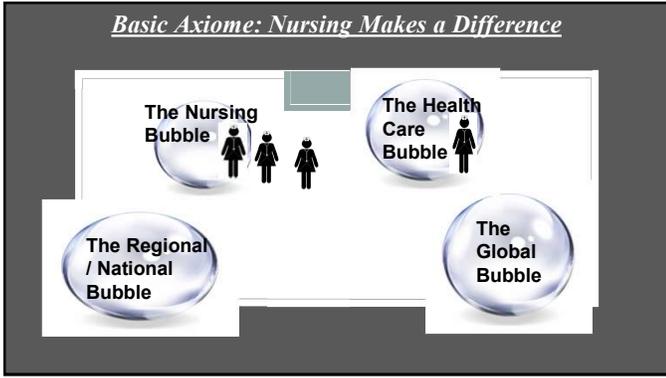
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accelerate knowledge transfer and integration in the spheres of policy, health system, and practice

*Have You????*

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**PROPOSED SOLUTIONS:  
IMPLEMENTATION SCIENCE**

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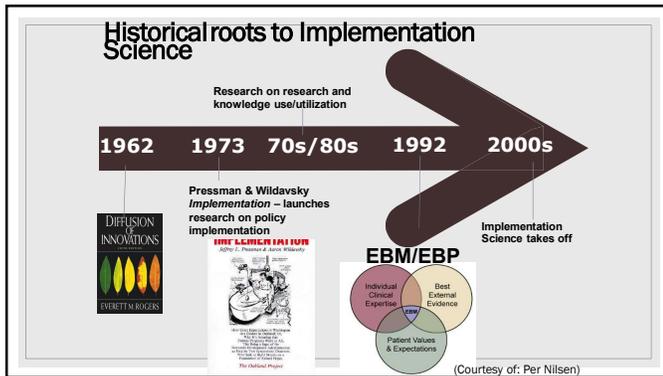
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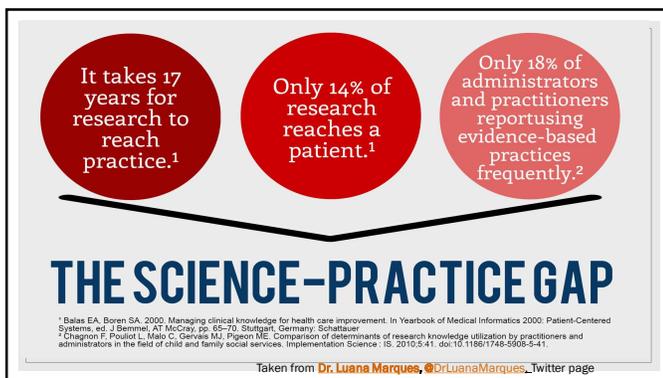
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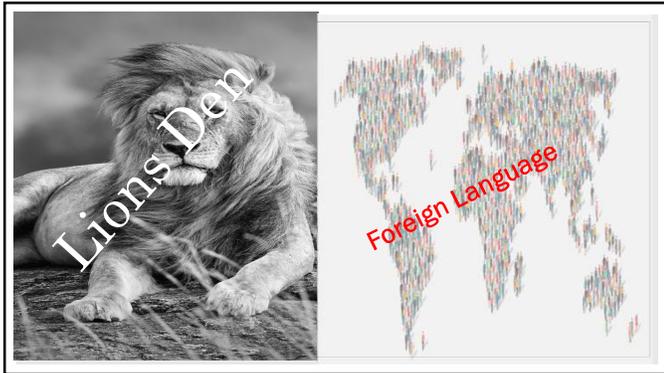
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◦ Nothing in life just happens. It isn't enough to believe in something: you have to have the stamina to meet obstacles and overcome them, to struggle

◦ Golda Meir

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**need to engage in global, national and local levels for the integration of knowledge and decision making**



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**Global Health Agenda for the 8 Billion**

- UHC: Universal Health Coverage
- SDG2030: Sustainable Development Goals
- NCD: Non Communicable Diseases
- HRH: Human Resource for Health
- Aging
- Health System Strengthening
- Migration (Europe)
- Man and nature made disasters
- Pandemics

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**Global Actors for the 8 Billion**

UN Agencies	Governments	Donors, Foundations	Interest groups
Professionals	Public	Private Sector	....

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**UN Specialized Agencies (N=16)**

World Health Organization (WHO)	International Labour Organization (ILO)	World Bank (WB)
International Monetary Funds (IMF)	World Trade Organizations (WTO)+++	UNICEF

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**SDG2030: Global Goals**

September 2015

193 UN General Assembly World Leaders agreed to 17 Global Goals for Sustainable Development with 169 Targets, meaning an end to extreme poverty, inequality and climate change by 2030.

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**Sustainable Development Goals 2030**

1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	SUSTAINABLE DEVELOPMENT GOALS

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**SUSTAINABLE, DEVELOPMENT GOAL 3**  
Ensure healthy lives and promote well-being for all at all ages

Global Health	Polio	Life Expectancy	Maternal Mortality	Child Mortality
Malaria	HIV/Aids	Suicide	Burden of Disease	Eradication of Diseases
	Causes of Death	Financing	Healthcare Smoking	

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**Sustainable Development Goals 2030**

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**role of nursing science in the field of innovation and start ups.**

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# Innovation



INCREMENTAL VS  
RADICAL INNOVATION



INNOVATION IN PROCESS,  
SERVICE AND PRODUCT

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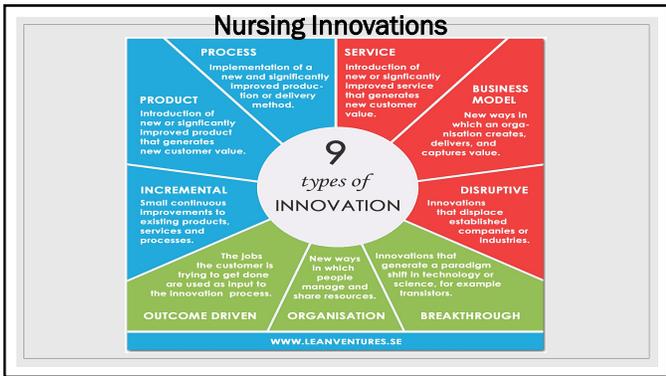
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### Crash Cart: Neonatal Phototherapy

(saves lives) (saves lives) (1950)

Nurse: Anita Dorr (1968)



The Photo by Unklebant Author is licensed under CC BY-NC

(saves lives) (1950)

Sister Jean Ward Essex (Nurse), 1950's



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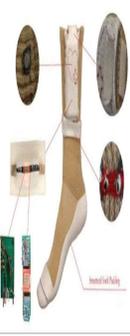
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**Pamela Z. Cacchione, PhD, CRNP, BC, FGSA, FAAN**  
**Ralston House Term Chair in Gerontological Nursing, University of Pennsylvania School of Nursing Nurse Scientist, Penn Presbyterian Medical Center**  
**Invented heart failure monitoring socks**  
**J&J: What was the inspiration behind your invention?**  
 Pamela: I have been a gerontological nurse practitioner for over 30 years and taken care of countless nursing home residents with heart failure. But when my brother developed heart failure in his 40s following surgery, I was at a loss. I could not get him to weigh himself. We finally started talking about marks from his socks, a symptom of peripheral edema, which gave me the idea to develop heart




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◦ **2000s: Teri Barton-Salina and Gail Barton-Hay – Color-coded IV Lines**  
 ◦ Speed and accuracy are critical within any hospital unit, but especially in ICUs and NICUs. In these units, nurses must manage complicated medical devices and deliver medicine through assorted IV catheters, pumps, and ports. Identifying all of these lines in seconds, when they're all made of clear plastics, can be very risky. Teri had the idea to color-code these lines when she was applying them to a newborn. She, along with her sister and fellow nurse Gail, patented the lines, ColorSafe IV Lines<sup>®</sup>, in 2003.

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**EMULAIT**

We are introducing the most advanced innovation in the baby bottle industry, designed to emulate the experience of breastfeeding.




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**Emulait key features and benefits.**

<p><b>The elasticity of a real nipple.</b></p> <p>Simulating the elasticity of a real nipple, Emulait nipples stretch and elongate during bottle feeding, which provides oral development benefits that no other bottle provides.</p>	<p><b>The texture and feel of a real nipple.</b></p> <p>Flesh-like in both softness and texture, Emulait is not stiff and rigid like other bottles. Emulait nipples replicate the texture of stimulated areola glands and have interior fibers to mimic milk ducts.</p>	<p><b>The shape and color of a real nipple.</b></p> <p>Babies visually detect the location of the mother's nipple based on the contrast between the areola and the breast, so we match color to ease the transition between breast and bottle, and minimize the risk of nipple confusion.</p>
<p><b>The milk flow rate of a real nipple.</b></p> <p>Multiple holes on the tip and sides of Emulait Nipples replicate how a mother's nipple extracts milk, giving babies the same natural control they have at the breast, and reducing the risk of overfeeding and obesity.</p>	<p><b>A bottle designed like a real breast.</b></p> <p>The breast-shape design of our Anatomy bottle creates a more natural baby-to-breast positioning during feedings, provides better eye-to-eye contact with baby, and facilitates responsive feeding.</p>	<p><b>The reduction of air intake.</b></p> <p>Commonly referred to as "anti-colic," Emulait nipples regulate pressure and reduce swallowing (aerophagia) to minimize gas, stomach discomfort, and fussiness.</p>

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**SCIENTIFIC ADVISORY BOARD**

The background features various chemical structures, including a complex organic molecule with a benzene ring, a methyl group, and a carboxylic acid group. At the bottom left, the chemical equation  $2\text{KNO}_3 + \text{H}_2\text{CO}_3 \rightarrow \text{KCO}_3 + 2$  is displayed.

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Scientific Advisory Board

**Judith Shamian**  
RN, PhD, D.Sc. (Hon), LLD (Hon), FAAN Chair of the Scientific Advisory Board

Judith's nursing achievements span the fields of academia, administration, and policy. She is the President, Emerita of the International Council of Nurses, president and CEO of the Victorian Order of Nurses, president of the Canadian Nurses Association, and a professor at the Lawrence S. Bloomberg Faculty of Nursing at the University of Toronto.

**Michael W. Woolridge**  
B.Sc., DPhil

Michael is the Co-Director at the Bright Start Foundation for Mother and Child Health. He is an infant feeding expert, having lectured on the subject at University College London Institute of Child Health and the University of Leeds. He was the National Director of UNICEF UK's Baby Friendly initiative.

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Scientific Advisory Board

**Rae Jean Hemway,**  
MPA, BSN, RNC-NIC

Rae Jean is a leading expert in newborn intensive care. She has many journal publications to her name highlighting her research on subjects from face mask ventilation to reducing hypothermia in preterm infants. She is the Director of Nursing and Pediatric Services at New York Presbyterian/Weill Cornell Medical Center.

**Linda M. Hanna, RNC,**  
MSN/Ed., IBCLC

A renowned lactation and OB expert, Linda is the founder and owner of My Nursing Coach, a pioneering mobile breastfeeding center. She is the co-founder of Mahmees, a management platform that coordinates prenatal and postpartum healthcare for payers, providers, and patients. She is also the founder of the Great Starts program at Kaiser Permanente and the Cedars-Sinai Medical Center Lactation Education Program.

**Orit Jacobson, PhD, RN**

Dr. Orit Jacobson is a renowned health care executive with over twenty years of senior leadership positions. Dr. Jacobson held multiple leadership roles at Israel's largest HMO, Clalit Health Services, including Vice President of Community and Digital Health, Head of the Tel Aviv health district, and more recently was the CEO of MOH. Today, Dr. Jacobson serves as the CEO of Or Health Services, a private company providing business and strategic consulting services to companies in the healthcare industry.

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*"The mind is like a parachute.*

*It doesn't work if it is not open"*

*Frank Zappa*




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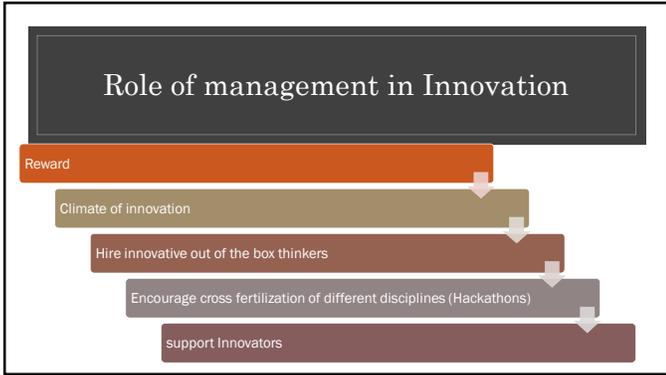
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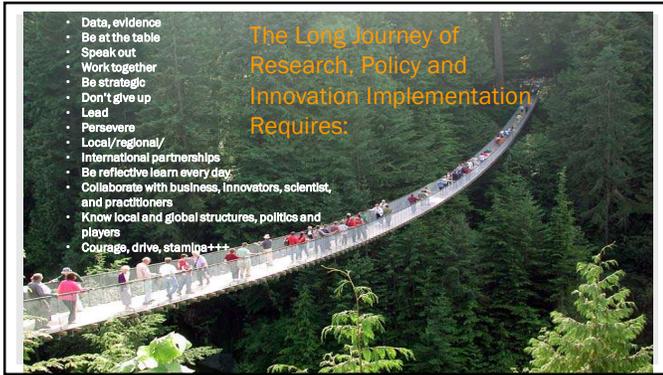
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