Stubborn Paradigms
Do I really need to wash my hands?

• 174 years ago, 0% handwashing

• Ignaz Semmelweis

• Childbed fever $\rightarrow$ 18.3% mortality!

• Death of a friend... eureka?

• Phenomenon identified $\rightarrow$ hands washed $\rightarrow$ 0% mortality at 2 months.

• Ridiculed as ‘improbable and unscientific’
Paradigm shifts taught in medical school...

• 1670s Van Leeuwenhoek’s ‘animalcules’
• 1847 Semmelweis’ infection control
• 1854 John Snow and the ‘Broad St outbreak’
• Anesthetics, antibiotics, vaccination/inoculation
5 Themes

1) Someone got curious about something odd

2) Novel theory based on direct observation

3) Broad skepticism

4) Everyone becomes a father

5) Improvements in *acute* care medicine
What about chronic diseases???

(CANCER, chronic viral infections, some chronic neurological conditions, many others)
IONS to the rescue!
Curious about something odd?

- Sometimes cancer can mysteriously go away
- Definition of SR
- Frequency of SR...1 in 70 in placebo studies???
- What’s the paradigm?
- What’s the shift? → Treating some vs all cancers differently
How it all started

- Prior to 1993, 2 texts and an int’l conference on SR
- The need for consolidation and pathophysiological clarity led to IONS’ SRaB, a 713-page textbook, published in 1993.
- Total cases of malignant cancer SR = 1372.
What did we learn?

- A multitude of non-standard treatment factors (including psychosocial) for cancer SR have been proposed.
- A treasure trove of data, a new field of study?

**Persistent problems:**

- Under-reporting, under-reporting, under-reporting.
- Misdiagnosis remains an issue
- Natural history ≠ SR
Evolution of IONS SR Database

- 3 additional IONS literature reviews and an online version
- MD involvement in SR research since 2012
- What are we doing now?
- Final numbers caveat...
IONS SR Database

- First envisioned in 2012
- A complete overhaul of all previously reported data
- A hypothesis-driver – finally!
- Goal = Hypotheses $\rightarrow$ Hope
What do we know

• Immune-mediated, multiple phenomena
• Not all cancers are alike
• Three categories of SR
  • Known physical intervention/event
    • HCC, Storey et al 2011, Breast CA Dussan et al 2008
  • Known psychosocial factors
    • Frenkel et al 2011 – activism, altruism
    • Cunningham 2004 – Authenticity, autonomy, acceptance
  • Unknown
    • Most!
Thank you 😊