



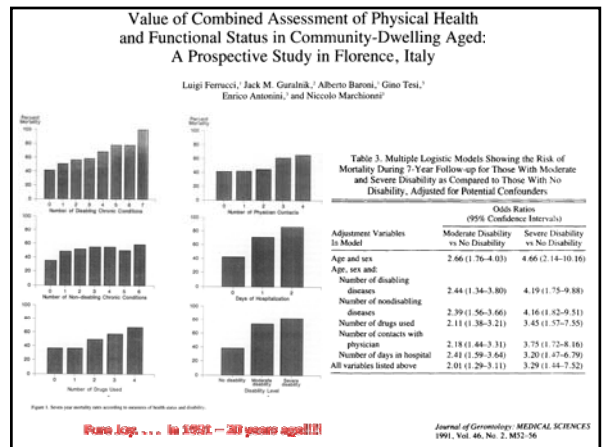
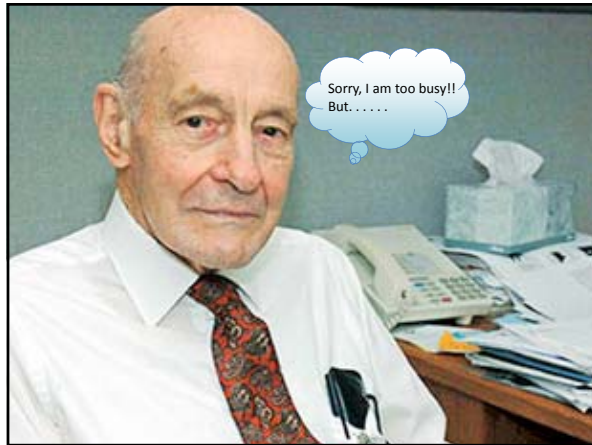
## Secondary Data Analysis

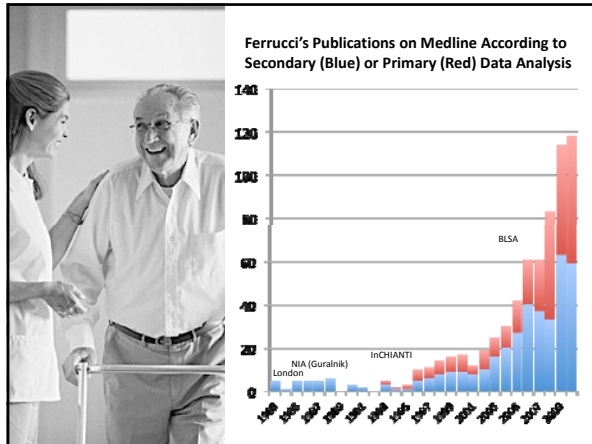
### On Cherry picking and Rediscovering the Wheel



**Luigi Ferrucci, MD, PhD**  
 Longitudinal Studies Section  
 Clinical Research Branch  
 National Institute on Aging  
 Baltimore, MD







### Secondary vs. Primary data Analysis

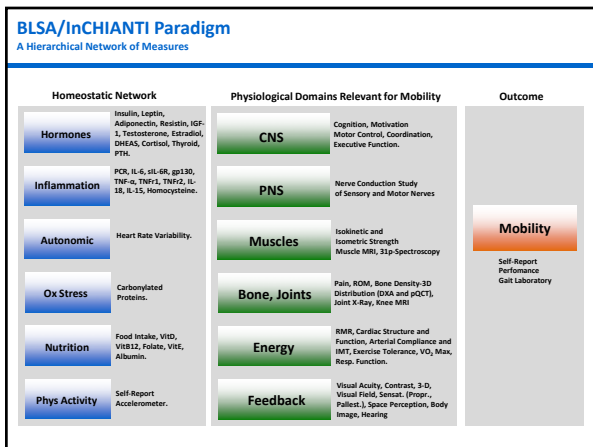
This is good!!

- Easy access to relatively “clean” data
- Study paradigm already explicit
- Collaboration with experienced investigators
- “Trust” on the data already established (\$!@!!)
- Previous papers as template (methods section)
- Fast track to publication
- Possible with no funding (#\$%^&\*\$!!!!)
- Possibility of “add on” studies (repository)
- Future data collection. . . . .

### Secondary vs. Primary data Analysis

This is . . .not so good!!

- There are RULES!! (proposal approval, IRB etc.)
- First to come first to be served
- May need strong and continuous mentorship
- Some time. . . unfriendly collaborators
- Privacy and confidentiality
- Some journal only publish recent data
- High risk of duplication (check, check,!#\$!\*#\$!!!!)
- High risk of “So what!”
- Need to adapt hypothesis to the data available

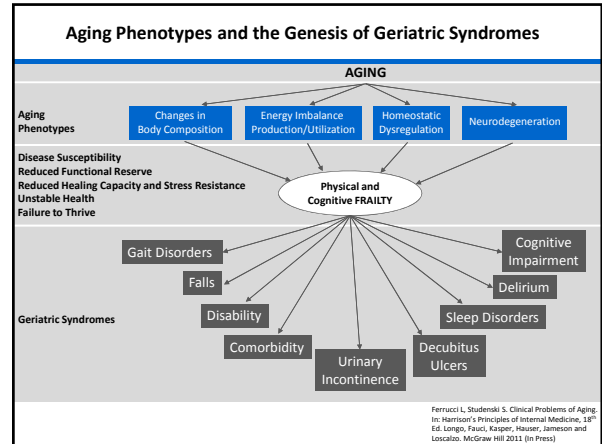


**InCHIANTI**  
Invecchiare nel CHIANTI

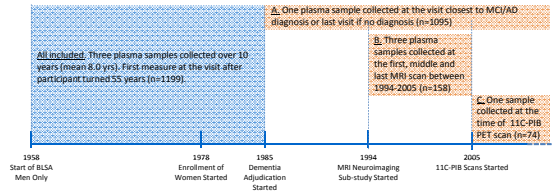


English version  Italian version 

[www.inchiantistudy.net](http://www.inchiantistudy.net)



#### Longitudinal Study of Lipids and APOE in the Development of AD and AD Pathology (U01-AG037536) in collaboration with Michelle Mielke (JHU) and Susan Resnick (LBN-NIA).

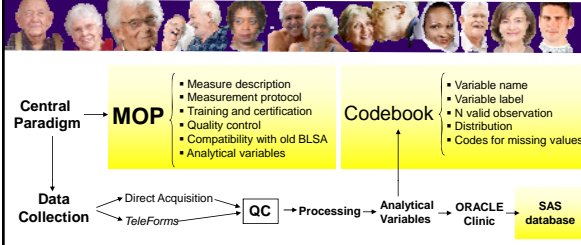


**EXPOSURE – Plasma Lipids (= 4,000 samples)**

- Targeted Lipidomics using HPLC/MS/MS and Multiple Reaction Monitoring (N. Haughey, JHU).
- ◆ Sphingolipids (eg. Ceramides, Gangliosides, S-1-P)
- ◆ Fatty acids (eg. Omega-3 and Omega-6)
- ◆ Cholesterol and cholesterol esters

**OUTCOMES – Cognitive-Related**

- ◆ Adjudicated diagnoses of dementia, AD and MCI
- ◆ Cognitive evaluation (memory, executive function, language, attention, spatial ability)
- ◆ MRI imaging (brain & lesion Volumes)
- ◆ PET measures of regional cerebral blood flow
- ◆ 11C-PIB PET imaging (beta-amyloid deposition)



#### Data Sharing

- BLSA Website**
  - BLSA Design
  - MOP
  - Codebook
  - Forms
- Submission Process**
  - Brief Proposal Submitted to the BLSA PI
  - If approved – **CONCEPT to NIA CIM**
  - If approved – **IRB, MTA etc.**
  - If approved – **Paper/ Grant Proposal**
- Collaboration**
  - Training Young Investigators
  - Data Management
  - Preliminary Data
  - A source for scientists

**Do you know someone?**

- ✓ 80 or older?
- ✓ Mentally sharp?
- ✓ In great health?

**Is it you?**

ferruccilu@grc.nia.nih.gov