

Statistics Jobs

La mia esperienza nell'industria farmaceutica Silvia Barbi, Statistician at Novartis Vaccines Bologna, 9 Maggio 2014



Formazione ed esperienze accademiche

Laurea triennale in Statistica e Ricerca Sociale

(luglio 2007)

•Tesi: How the choice of different cut-offs influences the disagreement between quantiferon TB gold and TSPOT.TB tests in the diagnosis of latent tubercolosis: A crosssectional study - in collaborazione con il Dipartimento di Oncologia, Ematologia e Patologie dell'Apparato Respiratorio, Università di Modena e Reggio Emilia

Assistente alla didattica

(a.a. 2007/08)

· Lezioni in laboratorio del corso in Statistica e Calcolo delle probabilità

Scambio Overseas

(a.a. 2008/09)

· Visiting Graduate Student alla University of Washington, Seattle WA, USA

Laurea specialistica in Scienze **Statistiche**

(ottobre 2009)

•Tesi: Cancer-associated genomic regions and microRNAs: a statistical investigation - in collaborazione con il Department of Molecular Virology, Immunology and Medical Genetics, The Ohio State University, Columbus OH, USA

Licenza Collegio Superiore (ottobre 2009)

· Itinerari avanzati di carattere interdisciplinare

Docente a contratto (a.a. 2010/11)

Breve modulo sulle fonti sanitarie all'interno del corso in Biostatistica



Esperienze in azienda

CROS NT

(gennaio 2010 - gennaio 2013)

Role: Statistician

NOVARTIS VACCINES

(febbraio 2013 – oggi)

Role: Statistician



Ricerca e Sviluppo (R&D) nel settore farmaceutico

Discovery: Identification of novel drug candidates

Pre-clinical: use of animals in drug development

Clinical development:

- Phase 1
- Phase 2
- Phase 3
- Registration
- Phase 4









Come si colloca lo statistico nella ricerca clinica

In una CRO

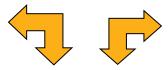




Sponsor X









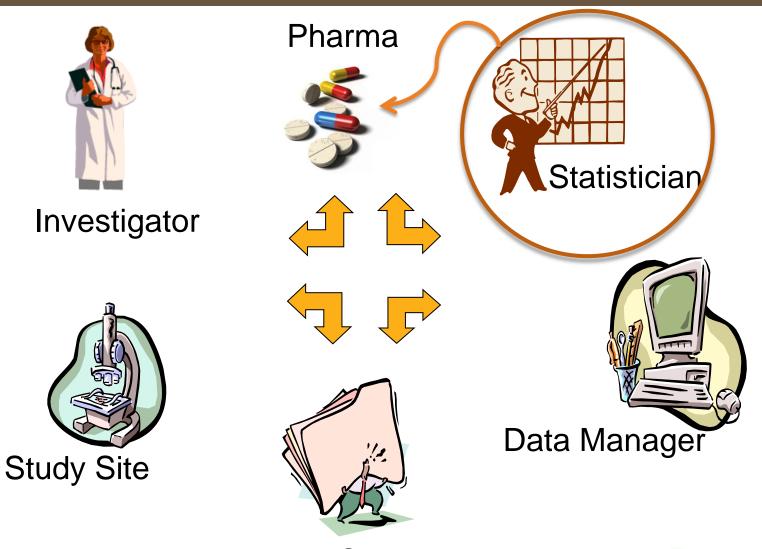






Come si colloca lo statistico nella ricerca clinica

In un'azienda farmaceutica



Il ruolo dello statistico nell'industria farmaceutica

Principali attività e responsabilità

Provides consultation and advice in quantitative/statistical, experimental design, and data management issues.

Interact with Health Authorities and external consultants as appropriate.

Works with the clinical team to develop clinical protocols, analysis plans and final study reports for clinical development projects.

Interact with Clinical Data Management as appropriate.

> Member of core clinical team, attend meetings and coordinates activities for assigned clinical trials with internal data management and programming staff, medical writing and regulatory affairs.

Plans, coordinates, and produces statistical analyses and summaries in support of product development.



Metodologie statistiche utilizzate



General

- Linear models (e.g., ANCOVA, ANOVA, Regression)
- Regression models for binary data (e.g., logistic regression, log-linear)
- Regression models for counts (e.g., Poisson regression)
- Survival analysis
- Multiple testing
- Bootstrapping
- Meta-analysis

Clinical trials specific

- · Sample size estimation
- Adaptive designs
- Dose-response
- Lot-to-lot consistency/ Non-inferiority designs
- Techniques to deal with missing values

Vaccine trials specific

- •Vaccine designs (e.g., household contact study, cluster-randomized designs)
- Vaccine efficacy
- •Surrogate endpoints (e.g. correlate of protection)



Background ideale

Education

At least Master Degree in Statistics / Mathematics

Languages

• English, excellent spoken and written

Experience

- Demonstrated sound knowledge of statistical applications.
- Awareness of appropriate regulations and guidance documents.
- Preferably SAS programming knowledge.
- Some medical knowledge, especially in relation to specific vaccines area.
- Strong problem solving skills and sound statistical judgment. Technical capability to address common statistical problems arising in work.
- · Attentiveness to detail.
- Strong interpersonal skills. Effective oral & written communication skills.
- Ability to effectively represent Biostatistics and Clinical Data Management in multidisciplinary meetings.
- Demonstrated ability to complete complex tasks on a timely basis with minimal supervision; well
 organized.
- Good project management skills.
- Good team player, good business ethics skills.



... Domande, dubbi, curiosità?



