EUro*pass* Curriculum Vitae Soutrik Banerjee

# PERSONAL

# Soutrik Banerjee



Franconville, 95130, France

+33 1 34 13 12 66 🔓 <u>+33 6 66 16 87 52</u>

soutrikb@yahoo.fr mit\_70@hotmail.com

LinkedIn: https://www.linkedin.com/in/soutrik-banerjee-47a75b4/Research Gate:

https://www.researchgate.net/profile/Soutrik Banerjee sautrika bandyopadhyaya Google Scholar: http://scholar.google.com/citations?user=SzqZ0yEAAAAJ&hl=en

Mendeley: <a href="https://www.mendeley.com/profiles/soutrik-banerjee/">https://www.mendeley.com/profiles/soutrik-banerjee/</a>
Git Hub: <a href="https://github.com/Mithua">https://github.com/Mithua</a> [-master- & -branch-, 'myRepository', 'myHadoop']

soutrikb [Skype]

Sex Male | Date of birth 04/05/1970 | Nationality Indian (having French work permit) | Civil status Married

## Sr. Statistician

Have 50% experience in corporate sectors (pharmaceuticals & vaccines) and have 50% experience in academia & public sectors;

85% FTE in R & D, 15% FTE in marketing;

80% FTE as technical project expertise, 20% FTE in managerial roles;

50% FTE as statistician, 50% FTE in programming TFLs;

80% FTE working in observational data, 20% FTE working in clinical trials data;

Have studied & worked in: France, Belgium & India;

Experienced in over 50 French, European, international & corporate projects;

Worked on 20 French, European & US databases;

Have over 40 publications & communications

#### **KEY POINTS**

**POSITION - SUMMARY** 

- MOOCs in big data & data science
- 15+ years' experience in claims / registry / surveillance / cohort / RCTs / insurance databases (or data) for pharmaceutical / vaccines & public health sectors
- Design cross-sectional, retrospective & prospective cohorts, case-control, propensity matching, meta-analysis, case-crossover, & ecological studies
- Drug utilisation, healthcare utilisation & cost, HTA, HIA, EBM, burden of illness, & QoL
- Analysis, programming & data mining of efficacy / AE outcomes
- Develop & review: analysis plans, protocols, & reports

## WORK EXPERIENCE

June 2017 - Present

## Consultant Expert Statistician

DBV-Technologies, Paris, France (https://www.dbv-technologies.com)

- Provide statistical support (CDISC, SAP, protocol, SAS / R / Stata programming of TFLs, QC & macros / functions, analysis, validation, data mining, publications, oral/poster communications & reports) for the biometry team
- Keywords: CDISC, Peanuts allergy, data mining, sample size & power, Phase II & Phase III clinical trials, pharmacovigilance

March 2016 - August 2016

Consultant Outcomes Research Statistician



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Bristol-Myers Squibb, Paris, France (http://www.bms.com)

Indications

- Eliquis® [apixaban], novel oral anti-coagulant (NOAC), for persistence, bleeding & stroke prevention in non-valvular atrial-fibrillation (NVAF) & recurrent venous thrombo-embolism (VTE)
- Empliciti® [elotuzumab] for multiple myeloma, Opdivo® [nivolumab] for melanoma, NSCLC
- Daklinza<sup>®</sup> [daclatasvir] for Hepatitis-C
- Keywords: protocols & SAPs development, review & amendment in Non-Interventional Research (NIR), Post-Authorisation Safety (PAS) study, Comparative Safety & Effectiveness Research (CSER), Authorisation for Temporary Use (ATU), CRO outsourcing & management, review committee, sample size & power, data consistency & integrity checking using SAS

Business or sector Pharmaceuticals [corporate]

### July 2015 - November 2015

## Consultant Statistician-Programmer in Real-World Data Analysis

Janssen Pharmaceuticals (J&J), Paris, France (http://www.janssen.com)

- Xeplion<sup>®</sup> [paliperidone palmitate] PAS study (Swedish & Danish national registry databases, data management, SAS programming of TFLs, QC & macros, analysis)
- Mentor 1 junior statistician-programmer
- Keywords: SAS, registry databases, big data, anti-psychotics

Business or sector Pharmaceuticals [corporate]

### August 2011 - June 2015

### Principal Statistician in Environmental Sciences & Health

INSERM UMR-S 1136 - UPMC-Sorbonne, Paris 6, France (http://www.inserm.fr, http://www.upmc.fr)

- Provide statistical support (inputs into protocol, design, SAP, data management, programming TFLs (using various software incl. <u>SAS</u>, <u>Stata</u>, <u>R</u>, <u>MLwiN</u>, <u>BUGS</u>, <u>Weka</u>, <u>RapidMiner</u>, Matlab, GIS, etc.), analysis, publications, oral / poster communications & reports) for several French, European & International projects
  - Extract data from the French national health insurance database
- Associate professor (topics in statistics) at Pierre & Marie Curie University, Paris 6 (Master II TES), University Denis-Diderot (Master I RIM), Paris 7 & EAACI summer school on Allergy, Brindisi (<a href="http://www.eaaci.org">http://www.eaaci.org</a>)
  - Overview, association, sample size & power calculations, data management & analysis with R language, correlation & regression, ANOVA, Epi-Info
- Mentor master, doctoral & post-doctoral students from France or exchange programme students
- International travelling for several project meets & missions
- Keywords: cardio-respiratory, asthma & allergic outcomes, (indoor) air pollution (quality), wildfires, building characteristics, neighbourhood characterisation, stress, school children; (Bayesian) hierarchical models, spatial / ecological analysis, meta-analysis, time-series analysis, data mining, machine learning, cluster analysis, latent class analysis, (un-)supervised learning, cross-validation, parameter optimisation, attributes selection, claims database, big data, questionnaires, cohorts

May 2010 - May 2011 *Consul* 

Business or sector Environment & Health [academia / public]

## Consultant Statistician-Programmer in Epidemiology

GSK Biologicals, Brussels, Belgium (http://www.gsk.be/fr-biologicals.html)

- Provide statistical support (SAS programming of TFLs, QC & macros, analysis, statistical reports) for infectious diseases (Staphylococcus, Streptococcus, Haemophilus, H1N1 PAS study in epidemiology (team 4) projects or extraction from US databases (CDC-NHDS & TSN)
- Keywords: SAS, vaccines, Streptococcus, Staphylococcus, Haemophilus, H1N1, Bayesian disease mapping (BUGS), registry database, big data

Business or sector Vaccines [corporate]

### February 2010 - May 2010

## Consultant Statistician in Clinical Data Integration

Boehringer-Ingeheim, Brussels, Belgium (<a href="https://www.boehringer-ingelheim.com/global\_activities/europe/germany.html">https://www.boehringer-ingelheim.com/global\_activities/europe/germany.html</a>)

Clinical Data Integration (CDISC-ADaM mapping, QC) for Phase III diabetes clinical trials

Business or sector Pharmaceuticals [corporate]

### June 2007 - February 2010

### Consultant Outcomes Research Statistician

UCB Pharma, Brussels, Belgium (http://www.ucb.com)



### Curriculum Vitae

### Soutrik Banerjee

- Provide statistical & epidemiology support (inputs into design, SAP, analysis, publication, oral / poster communication, report, PharMetrics<sup>®</sup> US claims database extraction) for the outcomes research team
- Liaise with both development (statistical programming, health economics, patient-reported outcomes, medical affairs, pharmacovigilance) & marketing / commercial teams
- Domains: drug utilisation, healthcare cost & resource, market churn, patient segmentation, indirect comparison, meta-analysis, systemic literature review, persistence-compliance, dose (de-)escalation, burden of illness, comorbidities, QoL
- Keywords: SAP, statistical modelling (mainly SAS), HEOR, epilepsy, collagen-vascular & immune diseases, diabetic neuropathy, Parkinson, RLS, adverse events, claims database, big data

Business or sector Pharmaceuticals [corporate]

### July 2006 - April 2007

## Post-Doctoral Researcher Statistician

INSERM U.687, Paris, France (http://www.inserm.fr)

- Epidemiology research involving the Whitehall II British civil servants' cohort
- Keywords: cognitive function (battery of tests), cognitive decline, depression (GHQ), social epidemiology, analysis of change

April 2000 - July 2000

Business or sector Social epidemiology [academia / public]

Consultant Medical Transcription Instructor

MCC Software Pvt. Ltd., Calcutta, India

Provided training to 25 Medical Transcription trainees

Business or sector Medical Transcription [corporate]

August 1996 - December 1998

### Resident Medical Officer

Life-Line Nursing Home, Calcutta, India

Worked in the Intensive Care & Dialysis units

Business or sector Medical [corporate]

August 1994 - August 1996

### Senior House Officer

SSKM-IPGMER Hospital, Calcutta, India

Worked in the Cardiology, Medicine, Nephrology & Neurology departments

Business or sector Medical [public]

### **EDUCATION AND TRAINING**

### 2016 - 2017

### MOOCs & courses in big data & data science

Udacity nanodegree in deep learning, DataCamp in Python & R, Udemy in data science, big data, machine learning, deep learning & AWS with Python, R, Spark & Scala, DSTI classes, Paris, France (includes MOOCs & 500 hours of classroom lectures with projects posted @Git Hub)

- Coursework:
- Graph theory, computational sociology, algorithms, data structures, optimisation
- Supervised learning Decision trees (M5P, CHAID, CART, decision stump, extra tree), k-NN, SVM / RVM, Gaussian process, boosting, bagging, voting, dagging, random forest, rotation forest, stacking, PLS regression, LASSO / ridge / elastic net / LARS regressions, least median squares regression, Bayes net, naïve Bayes, isotonic regression, pace regression, RBF regression
- Unsupervised learning cluster analysis (AHC, k-means), FA, DA, MCA, PCA, canonical correlation, LCA/LTA, FMM, preference mapping, multidimensional scaling/biplot
- Deep learning neural network, multilayer perceptron, convnet, RNN
- General methods attribute selection, multiple imputation, variable importance, CV, parameter optimisation, predictive modelling, Bayesian model averaging, data mining, machine learning, visualisation
- Time-series analysis financial (smoothing, forecasting, ADF test, (S)ARIMA, (M)(E / T)GARCH(-M), (S)VAR, VECM, TAR / SETAR / STAR, FTP / TVTP), non-parametric (GAM / GLM using natural(cubic) / penalised splines, GCV, d.f.)
- Cloud-based platforms Predix, Azure / Machine Learning Studio, AWS, SAS (CAS), Matlab

### 2005 - 2006

### Master II Biostatistics

Universiteit Hasselt, Diepenbeek, Belgium (250 hours of coursework + dissertation)





<u>Coursework</u>: Biometry, Linear Models, GLMs, Multivariate Analysis, Longitudinal Analysis, Mixed (Hierarchical) Models, Bayesian Analysis, Survival Analysis, Clinical Trials, Finite Mixture Models, Latent Class Analysis, Epidemiology, Modelling Infectious Diseases, Missing Data Analysis, Categorical Data Analysis, Robust Regression, Computer Intensive Methods, Data Mining, Machine Learning, Time-Series Analysis, Sample Size & Power Calculations, Survey Methods & Sampling Techniques, Meta-analysis & Indirect Comparison, Disease Mapping, Spatial Statistics, (Agent-Based Modelling & Simulation, Social Network Analysis)

## 2001 – 2005 PhD Methods of Analysis of Health Systems

Université Paul Sabatier, Toulouse III, France

- Lab: INSERM U.558 (Grenoble)
- Research: Telemedicine, Tele-surveillance, Tele-assistance, Clinical Research, Modelling, Geriatrics, Actimetry, Actigraphy, 'smart' bedroom

## 2001 - 2004 Master I (MSBM) Biomedical Sciences (part-time)

Université Joseph Fourier, Grenoble I, France (250 hours of coursework + dissertation)

 <u>Coursework</u>: Biostatistics; Epidemiology, Methodology in Clinical Research, Survival Analysis; Health-Environment-Toxicology

## 2000 - 2001 Master II Research (DEA) Biomedical Engineering

Université Joseph Fourier, Grenoble I, France (100 hours of coursework + lab research & dissertation)

- <u>Lab</u>: INSERM U.558 (Grenoble)
- <u>Coursework</u>: Medical Imaging (MRI, Microscopic Imaging, Ultrasound, Digital Signal Processing, Radio-nuclear Imaging)
- Research: Telemedicine, Teleassistance, Actimetry, Actigraphy

## 1988 - 1994 MBBS (Bachelor of Medicine & Surgery)

NRS Medical College & Hospital, University of Calcutta, West Bengal, India

- Clinical (Medicine, Surgery, Paediatrics, Orthopaedics, Eye & ENT disorders, Gynaecology, Obstetrics)
- Para-clinical (Pathology, Pharmacology, Microbiology, Forensic Medicine, Community Medicine)
- Pre-clinical (Anatomy, Embryology, Physiology, Biochemistry, Biophysics)

### PERSONAL SKILLS

## Mother tongue Languages

## Bengali

| English    |
|------------|
| Bengali    |
| French     |
| Hindi-Urdu |
| Spanish    |
| German     |

| UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|---------------|---------|--------------------|-------------------|---------|
| Listening     | Reading | Spoken interaction | Spoken production |         |
| C2            | C2      | C2                 | C2                | C2      |
| C2            | C1      | C2                 | C1                | B2      |
| B2            | B1      | C1                 | B2                | B1      |
| C2            | A2      | B2                 | B1                | A2      |
| A2            | A2      | A2                 | A2                | A2      |
| A1            | A2      | A1                 | A1                | A1      |

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user Common European Framework of Reference for Languages

### Management

- Overall: 20% of time
- Mentor 1 junior biostatistician (J&J)
- Mentor 19 master, doctoral & post-doctoral or exchange programme researchers from France or abroad (INSERM UMR-S 1136 – UPMC-Sorbonne, Paris 6)
- Manage 4 SAS programmers (UCB)



#### Job-related skills

### Data / databases knowledge:

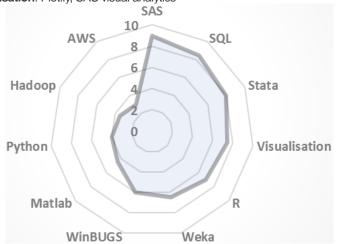
 PharMetrics<sup>®</sup> claims (US), Whitehall II cohort (UK), CDC-NHDS registry (US), TSN registry (US), Sniir-AM health insurance (Fr.), EGB health insurance cohort (Fr.), ESPS cohort (IRDES, Fr.), SINPHONIE study (EU), ISAAC French 6 cities study, PAISARC+ study (Fr.), FERMA study (Fr.), Asthm'Child study (Fr.), BAPHE study (Lebanon), HEALS (EU), EDEN (Fr.), PHASE (EU), Pollin'Air (Fr.), AIAPS (New Caledonia), national registries (Se., Dk.)

#### Projects:

- French: PAISARC+, ISAAC 6 cities study, FERMA, Pollin'Air, Asthm'Child, PID93, EDEN, Balistic; TIISSAD, AGRICA
- European: SINPHONIE (DG-SANCO), PHASE, GERIE, HEALS consortium (7th Framework) Program), MED-HISS (LIFE+), Xeplion® PAS study
- International: BAPHE, AIAPS
- + several corporate industry projects

#### Software

- Statistics: R, Stata, SAS (stat / graph / base / SQL / macro / EG / studio / EM)
- Bayesian: BUGS
- Multilevel: MLwiN + StatJR
- Data mining: RapidMiner, Weka, Orange
- Hadoop ecosystem: Hive, HBase, Sqoop, Flume, Spark, Scala, Kafka
- GIS: SaTScan, ArcGIS, QGIS
- Sample size & power: nQuery, G\*Power
- Multipurpose: Python, Matlab, Mathematica
- Agent-Based Modelling & Simulation: NetLogo
- Database Management System: Access, XAMPP
- · Visualisation: Plot.ly, SAS visual analytics



### Fields of expertise Infectious diseases

Neurology & psychiatric diseases

Collagen-vascular diseases

Respiratory & allergic diseases

- Staphylococcus, Streptococcus, Haemophilus, Acute Otitis Media, Chronic Obstructive Pulmonary Disease, H1N1, Hepatitis-C, Malaria, Adverse Events
- Endocrinology Diabetes Mellitus
  - Epilepsy, Parkinson, Restless Legs Syndrome, Suicidality, Schizophrenia, Adverse Events, Stress
  - Rheumatoid Arthritis, Systemic Lupus Erythematosus, Ankylosing Spondylitis
  - · Crohn's Disease, Psoriatic Arthritis
  - Asthma, Atopy, Lung Ageing, Allergic Rhinitis, Spirometry, Biomarkers, Peanuts
  - Dementia, Cognitive Impairment, Depression, Disability, Falls, Wandering, Burden of Illness
- Geriatrics Nephrology & dialysis
  - Internal medicine Cardiology

Immune diseases

Oncology

Haematology Medical devices

Environment Sociometrics

Nutrition

- Acute Myocardial Infarction, Atrial Fibrillation
- Multiple Myeloma, Melanoma
- Thrombo-embolism
- Cardiology, Geriatrics, Nephrology, Medical Imaging
- Indoor & Outdoor Air Pollution (Quality), Biological Agents, Wildfire
- Neighbourhood Deprivation Index, Small Area Statistics, New Zoning, Socio-Economic Status
- · Selenium, Mini-Nutritional Assessment



### Curriculum Vitae

Soutrik Banerjee

Psychometrics Education

- Verbal, Memory, Attention, Alice-Heim-4, Mill-Hill Tests, SF-36, GHQ-30
- Claims (health insurance) data
  - Specialities Main: Statistics, Data Science, Outcomes Analysis, Statistical Programming, Data Management
    - <u>Additional</u>: Epidemiology, Scientific Writing, Lit. Reviews, PROs, Health Economics, Medical Affairs, Drug Safety

Other skills

 Peer Reviews, Grant Proposals, RFPs, Questionnaires, CRO Outsourcing & Management, Review Committee

Recommendations

 Please consult my <u>LinkedIn</u> profile for recommendations and endorsements obtained and given (the link is provided at the beginning)

### ADDITIONAL INFORMATION

Job sectors

- Pharmaceutical & Vaccines Industries (4 years in Belgium, 1 year in France)
- Environmental Sciences & Public Health Research (INSERM) (5 years in France)
- Biomedical Engineering Research (CHU) (5 years in France)
- Medical (4 years in India)



### **Publications**

- Youssouf H, Liousse C, Roblou L, Assamoi EM, Salonen RO, Maesano C, Banerjee S, Annesi-Maesano I. Nonaccidental health impacts of wildfire smoke. Int J Environ Res Public Health 2014;11:11772-804 (doi: http://dx.doi.org/10.3390/ijerph111111772)
- Youssouf H. Liousse C. Roblou L. Assamoi EM. Salonen RO. Maesano C. Baneriee S. Annesi-Maesano I. Quantifying wildfires exposure for investigating health-related effects. Atmos Environ 2014;97:239-51 (doi: http://dx.doi.org/10.1016/j.atmosenv.2014.07.041)
- Caillaud D, Horo K, Baïz N, Banerjee S, Charpin D, Lavaud F, de Blay F, Raherison C, Annesi-Maesano I. Exercise-3. induced bronchospasm related to different phenotypes of rhinitis without asthma in primary schoolchildren: the French Six Cities Study. Clin Exp Allergy 2014:44;858-66 (doi: http://dx.doi.org/10.1111/cea.12310)
- Caillaud D, Horo K, Baïz N, **Banerjee S**, Charpin D, Lavaud F, de Blay F, Raherison C, Annesi-Maesano I. Différents phénotypes de rhinite allergique isolée (sans asthme) sont associés au bronchospasme induit par l'exercice: l'étude française des 6 villes. Rev Maladies Respiratoires 2014;**31**:4 (doi: <a href="http://dx.doi.org/10.1016/j.mr.2013.10.014">http://dx.doi.org/10.1016/j.mr.2013.10.014</a>) 4.
- Annesi-Maesano I, Baiz N, Banerjee S, Rudnai P, Rive S. Indoor air quality and sources in schools and related health 5. effects. Journal of Toxicology and Environmental Health, part B 2013;16:491-550 (doi:
- http://dx.doi.org/10.1080/10937404.2013.853609)
  Zhou C, Baïz N, Banerjee S, André Charpin D, Caillaud D, de Blay F, Raherison C, Lavaud F, Annesi-Maesano I. The relationships between ambient air pollutants, and childhood asthma and eczema are modified by emotion and conduct problems. Annals of Epidemiology 2013;23:778-83 (doi: http://dx.doi.org/10.1016/j.annepidem.2013.09.004)
- 7 Annesi-Maesano I, Zhou C, Baïz N, Banerjee S, André Charpin D, Caillaud D, de Blay F, Raherison C, Lavaud F. Externalising and internalising behavioural problems related to asthma in school children. *Allergy* 2013;**68**:1471-4 (doi: http://dx.doi.org/10.1111/all.12241)
- Zhou C, Baïz N, Zhang T, **Banerjee S**, Annesi-Maesano I. Modifiable exposures to air pollutants related to asthma 8. phenotypes in the first year of life in children of the EDEN mother-child cohort study. BMC Public Health 2013;13:506-15 (doi: http://dx.doi.org/10.1186/1471-2458-13-506)
- 9. Banerjee S, Annesi-Maesano I. Spatial Variability of Indoor Air Pollutants in Schools. A Multilevel Approach. Atmos Environ 2012;61:558-61 (doi: http://dx.doi.org/10.1016/j.atmosenv.2012.08.007)
  Richy F, Banerjee S, Makaroff L, Bancel C, Bancel C, Gervasoni C, Lilliu H. Health care costs stratified by epilepsy
- 10 severity in a US commercially insured setting. Value Health 2010:13:138 (doi: http://dx.doi.org/10.1016/S1098-3015(10)72671-1)
- Richy F, Banerjee S, Brabant Y, Helmers S. Levetiracetam extended release and levetiracetam immediate release as adjunctive treatment for partial-onset seizures: an indirect comparison of treatment-emergent adverse events using metaanalytic techniques. Epilepsy Behav 2009;16:240-5 (doi: http://dx.doi.org/10.1016/j.yebeh.2009.07.013)
- Richy F, Banerjee S, Gervasoni C, Grossman P, Helmers S. Safety profile of levetiracetam extended release as compared to immediate release. An indirect comparison using a meta-analytic approach. *Epilepsia* 2008;49:449-50 (doi: <a href="http://dx.doi.org/10.1111/j.1528-1167.2008.01872.x">http://dx.doi.org/10.1111/j.1528-1167.2008.01872.x</a>)
  Corte-Franco G, **Banerjee S**, Millet C, Ouzaid K, Steenkeste F, Couturier P. Analyse de l'activité motrice nocturne chez
- les patients avec troubles pycho-comportementaux par chambre actimétrique: à propos d'un cas. Rev Neurol 2009;10:83-4 (doi: http://dx.doi.org/10.1016/S0035-3787(09)72662-1)
- Banerjee S, Corte G, Moulin P, Steenkeste F, Couturier P. A short nocturnal activity scale used by nurses to evaluate hospitalised patients with dementia. JAm Geriatr Soc 2009;57:1953-5
- 15. Banerjee S. Gerontechnology for the European silver paper. Gerontechnology 2008;7:363 (doi:
- http://dx.doi.org/10.4017/qt.2008.07.04.017.00)

  Banerjee S & Couturier P. A mini-questionnaire to assess the acceptability of an environmental, unobtrusive, patient-16 monitoring device. J Telemed Telecare 2006;12:50-2
- 17. Steenkeste F, Banerjee S, Couturier P. Telesurveillance of geriatric patients in a hospital using passive infra-red sensors.
- Banerjee S, Couturier P, Steenkeste F, Moulin P, Franco A. Measuring nocturnal activity in Alzheimer's disease patients in a 'smart' hospital room. Gerontechnology 2004;3:29-35 (doi: http://dx.doi.org/10.4017/gt.2004.03.01.005.00)
- Couturier P, Banerjee S, Steenkeste F, Moulin P, Tranchant L, Moine S, Franco A. Télémonitoring de l'activité motrice par 19. chambre intelligente pour la détection, l'analyse, la prise en charge des troubles du comportement moteur des patients déments. Rev Neurol 2003;10:104-5
- Banerjee S, Steenkeste F, Couturier P, Debray M, Franco A. Telesurveillance of elderly patients by use of passive infra-20. red sensors in a 'smart' room. J Telemed Telecare 2003;9:23-9
- Debray M, Couturier P, Greuillet F, Hohn C, Banerjee S, Gavazzi G, Franco A. A preliminary study of the feasibility of wound telecare for the elderly. J Telemed Telecare 2001;7:353-8

#### Oral communications

- I. Annesi-Maesano, S. Banerjee, F. Amrani, A. Dallongeville, Olivier Blanchard, S. Deguen, N. Costet, D. Zmirou. Indoor galaxolide concentration prediction from building and occupants' characteristics. The 18th International Symposium on Environmental Pollution & its Impact on Life in the Mediterranean Region, MESAEP, Crete, September 2015
  A. Dallongeville, S. Banerjee, D. Zmirou, B. Le Bot, N. Costet, S. Deguen, I. Annesi-Maesano, O. Blanchard. Predictive
- modelling of indoor formaldehyde and SVOC concentration based on air sampling and descriptive questionnaire data. The healthy buildings conference Europe, Eindhoven, May, 2015
- S. Banerjee, C. E. Sabel, W. Kihal, C. Weber, I. Annesi-Maesano, D. Bard. Asthma attacks in the Strasbourg 3. metropolitan area: spatial analysis in relation to air pollution & neighbourhood deprivation. The 2<sup>nd</sup> Health & Space Symposium, Marseille, September, 2012
- F. Steenkeste, S. Banerjee, P. Couturier. Telesurveillance of the dependent seniors using passive infra-red sensors in a geriatric hospital. *Proc. of Telecare, Porto, April, 2004:86-96* 4.
- S. Banerjee, P. Couturier, F. Steenkeste, M. Debray, A. Franco. Télésuivi en continu de l'activité nocturne des déments 5. par des capteurs à infrarouge passifs. Le 7<sup>ème</sup> Congrès International Francophone de Gérontologie, Brussels, September
- 6. A. Franco, P. Couturier, C. Montani, G. Gavazzi, S. Moine, M. Debray, C. Hohn, P. Basset, A. Sagnier, F. Picot, L. Macern-Oberti, B. Bahmane, F. Tarpin-Lyonnet, J. Tyrrell, **S. Banerjee**, R. Culet, M. Frossard. Videoconferencing between remote hospitals for the professionals of gerontology. *The 17th World Congress of the International Association of* Gerontology, Vancouver, July 2001







#### **Posters**

- Y. Hassani, S. Banerjee, L. Roblou, C. Liousse, I. Annesi-Maesano. Wildfire exposure assessment and related health impact: a case study in Marseille. The International Smoke Symposium, Baltimore, October 2013
- 2 Y. Hassani, S. Banerjee, C. Liousse, L. Roblou, I. Annesi-Maesano. Wildfires: from exposure assessment and related health impact. Wildfire emission inventory in Europe from 2006 to 2010. Les Journées de l'École, St. Malo, October 2012; EHESP Annual Scientific Meeting, Paris, April 2013; Les Journées de l'École Pneumologie, Tours, September 2013
- C. Zhou, N. Baïz, **S. Banerjee**, D. André Charpin, D. Caillaud, F. de Blay, C. Raherison, F. Lavaud, I Annesi-Maesano. The relationships between ambient air pollutants, and childhood asthma and eczema are modified by emotions and conduct problems. Les Journées de l'École, St. Malo, October 2012; Les Journées de l'École Pneumologie, Tours,
- 4
- September 2013.

  F. Richy, **S. Banerjee**, L. Makaroff, C. Bancel, C. Clark, C. Gervasoni, H. Lilliu. Health care costs stratified by epilespy severity in a US commercially insured setting. The 15th ISPOR Annual International Meeting, Atlanta, May 2010.

  G. Corte, **S. Banerjee**, C. Millet, K. Ouzaid, P. Couturier. Analyse de l'activité motrice nocturne chez les patients avec troubles psycho-comportementaux par chambre actimétrique: à propos d'un cas. La 10th Réunion Francophone sur la 5. Maladie d'Alzheimer et les Syndromes Apparentés, Nantes, October 2009
- G. Corte, S. Banerjee, P. Couturier, F. Steenkeste, P. Moulin. Evaluating nocturnal motor activity of demented inpatients by a short semi-quantitative scale. The 19th World Congress of the International Association of Gerontology, Paris, July 2009; The 14th International Congress of the International Psychogeriatric association, Montreal, September 2009
- 7. S. Banerjee, G. Corte, F. Steenkeste, P. Couturier. Nocturnal wandering and cognitive function: cross-sectional and longitudinal study of elderly inpatients in France. The 19th World Congress of the International Association of Gerontology, Paris, July 2009
- F. Richy, S. Banerjee, C. Gervasoni, P. Grossman, S. Helmers. Safety profile of levetiracetam extended release as 8. compared to immediate release: an indirect comparison using a meta-analytic approach. The 62<sup>nd</sup> American Epilepsy Society Annual Meeting, Seattle, December 2008; The 61st American Academy of Neurology Annual Meeting, Seattle, April 2009
- S. Banerjee, P. Couturier, F. Steenkeste, P. Moulin, J. Garçon, V. Moulin, P. Dubey, A. Franco. Different actimetric models in demented elderly patients by use of GARDIEN system. The 18th World Congress of the International Association of Gerontology, Rio de Janeiro, June 2005
- S. Banerjee, P. Couturier, M. Schaff, F. Steenkeste, P. Moulin, A. Franco. Deambulatory actimetry of the demented 10. elderly in a geriatric hospital. The 18th World Congress of the International Association of Gerontology, Rio de Janeiro,
- S. Banerjee, P. Couturier, L. Tranchant, P. Moulin, A. Franco, F. Steenkeste. Évaluation et Gestion des troubles du comportement moteur nocturne chez le patient fragile ou dément par chambre actimétrique. 25<sup>ème</sup> Journées Annuelles de la Société Française de Gériatrie et de Gérontologie, Paris, October 2004
- S. Banerjee, P. Couturier, F. Steenkeste, C. Picard, L. Tranchant, A. Franco. Contribution du système GARDIEN au dépistage de l'hyperactivité nocturne au lit induite par la mesure de la pression artérielle ambulatoire. La 11<sup>ème</sup> Journée thématique de la Société Française de Gériatrie et de Gérontologie: Technologies au service du soin gérontologiques,
- S. Banerjee, P. Couturier, F. Steenkeste, L. Tranchant, P. Moulin, A. Franco. Continuous telesurveillance of nocturnal activity of frail elderly patients in a 'smart' hospital room. The 5th European Congress of Gerontology, Barcelona, July
- F. Steenkeste, **S. Banerjee**. Le TAPIS (Télésuivi de l'Activité de Personnes en Incapacité Sévère) actimétrique: apport technologique à la prise en charge des personnes âgées dépendantes. Le T<sup>ème</sup> Congrès International Francophone de Gérontologie, Brussels, September 2002
- F. Steenkeste, S. Banerjee, T. Voisin. Assistance aux Personnes Âgées Dépendantes. Évaluation d'une Approche Technologique. Journées INSERM, Midi-Pyrénées, Toulouse, March 2002
- S. Banerjee, Steenkeste F, Couturier P, Debray M, Franco A. GARDIEN: a system for detecting nocturnal motor activity in elderly patients in a hospital room. The 17th World Congress of the International Association of Gerontology, Vancouver, July 2001
- M. Debray, P. Couturier, F. Greuillet, S. Banerjee, C. Hohn, A. Franco. Reliability of wound assessment in the elderly 17. using high quality digital images. The 17th World Congress of the International Association of Gerontology, Vancouver, July 2001

#### Invited talks

- Asthma attacks in the Strasbourg metropolitan area: spatial analysis in relation to air pollution & neighbourhood 1. deprivation. Anthropological Survey of India, Calcutta, June 2015
- Les résultats d'une étude sur la qualité de l'air en établissement d'hébergement pour personnes âgées dépendantes 2. (EHPAD) ou 'maison de retraite médicalisée' et des propositions d'amélioration. Le 7ème rencontre des métiers de la santé, Strasbourg, May 2015
- 3 Epi-Info. European Academy of Allergy & Clinical Epidemiology summer school on allergy, Brindisi, July 2014
- 4 Teleassistance of the elderly: development of nocturnal ambulatory actimetry. Centrum voor Statistiek, Diepenbeek, January 2006
- 5. L'actimétrie déambulatoire. La 11ème Journée mondiale de la maladie d'Alzheimer organisée par l'Association Alzheimer 31, Toulouse, September 2004

### **Books**

- Banerjee S, Corte-Franco G, Couturier P. Actimetry and Telemedicine in Cognitively Impaired Elderly Inpatients, Lambert 1. Academic Publishing, 2012
- 2. Corte-Franco G, Banerjee S, Couturier P. Environmental actimetry: a new concept to evaluate elderly people, Lambert Academic Publishing, 2011

### Chapter

Couturier P, Tyrrell J, Banerjee S, Debray M, Moulin P, Franco A. Téléassistance en milieu gériatrique: besoins et réponses technologiques. In: Enjalbert M, ed. Rencontres en Rééducation: aides techniques et matériel d'assistance en gériatrie. Paris: Masson, 2002:63-73



### Project reports & manuscripts

- Effect of varying doses of epicutaneous immunotherapy vs placebo on reaction to peanut protein exposure among patients with peanut sensitivity: a randomised clinical trial. H Sampson et al., JAMA submission, August 2017
- Xeplion® study: Post-authorisation safety study of cardiovascular and cerebrovascular adverse events in elderly patients treated with Paliperidone PR, Xeplion® and other antipsychotics (draft), November 2015 2
- Asthm'Child: Cumalitive exposure to indoor air pollution which may induce chronic respiratory diseases in children. A. 3. Dallongeville, D. Zmirou-Navier, P. Le Cann, B. Le Bot, S. Deguen, C. Chevrier, N. Costet, S. Banerjee, I. Annesi-Maesano, O. Blanchard, March 2015
- SINPHONIE: Schools indoor pollution and health. Observatory network in Europe. E. Csobod et al., January 2015 4.
- 5. FERMA: Relation entre facteurs environnementaux et maladies allergiques et respiratoires en milieu rural. I. Annesi-Maesano, M. Hulin-Flammand, S. Banerjee, F. Vibert, D. Caillaud, O. Ramoussee, October 2012
- GERIE: Geriatric study in Europe on health effects of air quality in nursing homes. I. Annesi-Maesano *et al.*, June 2012 Poor air quality in classrooms related to asthma and rhinitis in primary schoolchildren of the French 6 Cities Study. I. 6.
- Annesi-Maesano et al., Thorax, March 2012 (doi: http://dx.doi.org/10.1136/thoraxinl-2011-200391)
- PAISARC+: Pollution Atmosphérique, Inégalités Sociales, Asthme et Risque Cardiaque: influence du contexte de vie. D. Bard et al., February 2012
- 9. A hospital-based, prospective, observational surveillance of empyema thoracis and uncomplicated parapneumonic pleural effusion in children and adolescents aged less than 18 years in Taiwan (GSK Biologicals report draft: study no. 110249 (EPI-STREP-110249)). R. Gardner, J. Sawchik Monegal, **S. Banerjee**, J-Y. Pirçon, A. Martens, D. Geypens, Y-F. Liu, M. Van Dyke, R. Colindres, May 2011
- The burden of Staphylococci in the US: an in-house NHDS and TSN® 1998-2006 databases analysis, in collaboration with GSK Pharmaceuticals (GSK Biologicals report: study no. 113122 (EPI-STAPH-001 BOD US DB)). J. Brissinck, J-Y. Pirçon, S. Banerjee, D. Geypens, A. Cassidy, L. Baril, February 2011
- Healthcare costs in epilepsy in a US commercially insured setting (UCB report). S. Banerjee, L. Makaroff, C. Gervasoni, F. Richy, September 2009
- Patterns of antiepileptic drug utilisation in epilepsy patients within the US patient-centric claims database Pharmetrics®: a
- cross-sectional study (UCB report). F. Richy, C. Gervasoni, A. Cimbi, S. Banerjee, February 2009
  Comparison of time to [removed due to confidentiality] between patients with epilepsy exposed to levetiracetam or to other antiepileptic drugs (UCB report: RRCE08B0616). F. Richy, S. Baner jee, C. Gervasoni, G. Le Teuff, A. Cimbi, F. Tonner, P. Grossman, May 2008
- [Removed due to confidentiality] rates among patients with epilepsy exposed to levetiracetam compared to those exposed to carbamazepine, gabapentin, lamotrigine, phenytoin, topiramate, valproic acid, or zonisamide (UCB report: RRCE08B0609). F. Richy, S. Banerjee, C. Gervasoni, A. Cimbi, F. Tonner, P. Grossman, April 2008
- Exploratory analysis of medication persistence and compliance in epilepsy patients using a claims (Pharmetrics®) database (UCB report: RRCE07D1101). J. Cramer, P. Grossman, G. Le Teuff, S. Banerjee, December 2007

### Project & seminar presentations

- Pitching for Industrial Internet Hackathon @GE Digital Foundry on GE Healthcare DoseWatch®, October 2016, Paris Galaxolide concentration prediction within dwellings, Asthm'Child project, December 2014, Paris
- 2.
- Formaldehyde concentration prediction within dwellings, Asthm'Child project, June 2014, Paris 3.
- (Geo-)database creation for HEALS platform, HEALS project, June 2014, Helsinki
- 5. Short-term effects of air pollution methodology, PHASE project, June 2014, Rome
- 6. Phenotypes & endotypes, HEALS project, May 2014, Ljubljana
- 7. 8.
- Predictive modelling & EWAS, HEALS project, March 2014, Thessaloniki
  French medical insurance claims database (Sniir-AM & EGB), Med-Hiss project, November 2013, Paris
  Pollution-health association studies, HEALS project, October 2013, Paris
- 9
- Short-term effects of air pollution, BAPHE project, Iranian visitors, June 2013, Paris 10.
- 11. Introduction to multilevel models, Inserm UMR-S 1136 (ESIM), Feb 2013, Paris
- Exploratory cluster analysis, Pollin'Air study, Stallergènes, s.a., May 2012, Paris
- 13. Meta-analysis, SINPHONIE project, February 2012, Paris
- Market churn analysis in Systemic Lupus Erythematosus, UCB, s.a., January 2010, Brussels 14.
- 15.
- 16
- Market chum analysis in Parkinson disease, UCB, s.a., January 2010, Brussels Market chum analysis in Epilepsy, UCB, s.a., December 2009, Brussels Pharmetrics® database for healthcare cost analysis, UCB, s.a., December 2009, Brussels Market chum analysis in Diabetic Neuropathy, UCB, s.a., September 2009, Brussels 17
- 18.
- Healthcare cost & resource utilisation in Ankylosing Spondylitis & Psoriatic Arthritis, UCB, s.a., September 2009, Brussels
- Healthcare cost in Epilepsy, UCB, s.a., September 2009, Brussels
- 21. Persistence & compliance in Epilepsy patients, UCB, s.a., July 2009, Braine-l'Alleud
- 22. Indirect comparison of Keppra IR vs. Keppra ER adverse events, UCB, s.a., November 2007, Braine-l'Alleud

### Teaching

- 1. 2.
- EAACI summer school on allergy (<a href="http://www.eaaci.org">http://www.eaaci.org</a>), Brindisi 2014, Epi-Info, 1 hour lecture, 40 participants Master I in Rehabilitation & Medical Engg., UMPC Paris 6, Paris 2014, Correlation regression ANOVA, 8 hours' lecture. 30 students
- 3. Master II in Toxicology-Environment-Health, UDD Paris 7, Paris 2013, Data management & analysis with R, 7 hours' practicals, 30 students
- 4. . Master I in Rehabilitation & Medical Engg., UMPC Paris 6, Paris 2013, Correlation – regression – ANOVA, 8 hours' lecture, 30 students
- 5. Master II in Toxicology-Environment-Health, UDD Paris 7, Paris 2012, Biostatistics overview – data management &
- analysis with R, 4 hours' lecture + 7 hours' practicals, 30 students

  Master II in Toxicology-Environment-Health, UDD Paris 7, Paris 2011, Biostatistics overview sample size & power 6 association – data management & analysis with R, 10 hours' lecture + 7 hours' practicals, 30 students
- Engg. Master, ISTG, Grenoble 2004, An application to gerontechnology, 1 hour lecture, 30 undergrad students
- Engg. Master, ISTG, Grenoble 2003, An application to gerontechnology, 1 hour lecture, 30 undergrad students
- DU in Gerontology, UJF, Grenoble 2002, An application to gerontechnology, small talk, 10 students
- 10. MCC software, s.a., Kolkata April-July 2000, teach medicine to the medical transcription trainees, 20 hours / week lecture,

## Jury

- DU in Toxicology, UJF, Grenoble 2005, Statistics, undergrad students
- Medicine, UJF, Grenoble 2005, Medical English, undergrad students



### Mentoring

- Thomas Bovagnet, junior biostatistician, 2015 for Xeplion® PAS study
- Shreosi Sanyal, biostatistician, 2015 for various projects
- Katia Solin-Skrodzki, master student in healthcare & society: epidemiology, clinical research & medication, U Caen, 2015, 3 biostatistics for SINPHONIE project
- 4. Lucile Sèse, master student intern in statistical methodology & clinical research, U Paris Sud Paris 2, 2015, biostatistics for
- Christelle Audi, master student intern in Toxicology-Environment-Health, UDD Paris 7, 2015, biostatistics for FERMA 5.
- 6. Fouad Amrani, master student intern in Toxicology-Environment-Health, UDD Paris 7, 2015, data mining for Asthm'Child
- 7 Youssouf Hassani, PhD candidate in environmental epidemiology, UMPC Paris 6, 2012-2014, biostatistics for PHASE, FERMA projects
- Nour Baïz, PhD candidate & post-doctoral researcher in environmental epidemiology, UMPC Paris 6, 2013-14, 8. biostatistics for Asthm'Child, EDEN projects
- Cailiang Zhou, PhD candidate in environmental epidemiology, UPMC Paris 6, 2013-14, biostatistics for ISAAC-6 cities, EDEN projects
- 10
- 11
- Fatima Benaïssa, visiting PhD candidate in environmental science, U de Béjaïa, 2014, biostatistics

  Matthieu Veil-Picard, MD & researcher, CHU Besançon, 2014, biostatistics with SAS® for Balistic study

  Joana Madureira, visiting PhD candidate in environmental engg., U do Porto, 2013, biostatistics for SINPHONIE+ project

  Myriam Mrad Nakhle, exchange PhD candidate in environmental epidemiology, St. Joseph U, Lebanon, 2013, 13. biostatistics for BAPHE project
- Nizar Ben Jeddou, master student in Toxicology-Environment-Health, UDD Paris 7, 2013, biostatistics for FERMA project
- Malek Bentayeb, PhD candidate in environmental epidemiology, 2013, UPMC Paris 6, biostatistics for GERIE project 15.
- Nhân Pham Thi, MD & researcher, Hôpital Neckar, 2011, biostastistics for ISAAC-6 cities study
  Gina Corte-Franco, PhD candidate in gerontology, CHU Grenoble, 2009, biostatistics for actimetry
  Véronique Moulin, master engg., ISTG, 2005, internship
  Johanne Garçon, master engg., ISTG, 2005, internship
  Parth Dubey, CHU Grenoble, 2005, internship 17
- 18 19.
- 20.

### Biostatistics: 68% (distinction)

- PhD: very honourable 3. Biomedical Sciences: 66%
- 4. Biomedical Engineering: 58%
- 5. Medicine: 61%

### Peer reviewing of journals

## (https://publons.com/author/1223475/soutrik-banerjee-sr-statistician-msc-md-phd#profile)

- 1 Indoor Air
- Environmental Health Perspective 2.
- 3. Gerontechnology
- Journal of Telemedicine & Telecare

### Awards & grants

Academic results

- 1. Industrial Internet Hackathon (IIH) @GE Digital Foundry leading our team to win the event, Oct 2016 [Parrot Drone, Intel Edison+Arduino, Groove starter kif] (https://industrial-internet-hack.devpost.com/submissions)
- 2. Distinction in Master II Biostatistics, Hasselt Universiteit, Oct 2008
- 3.
- 4.
- Felicitation of Jury, PhD, University Paul Sabatier, Oct 2005 GRECO scholarship, Oct 2005 (co-written with Pr. Dr. Pascal Couturier) [15,000 euros] Association France Alzheimer et Maladies Apparentées doctoral scholarships, Oct 2001, Oct 2002 & Oct 2003 [47,000] 5. euros1

### Major conferences attended

- The 2<sup>nd</sup> Health & Space Symposium, Marseille, Sep 2012 1.
- The 19th World Congress of the IAGG, Paris, Jul 2009
- 3. The 18th World Congress of the IAGG, Rio de Janeiro, Jun 2005
- 4.
- The 5<sup>th</sup> European Congress of Gerontology, Barcelona, Jul 2003 Le 7<sup>the</sup> Congrès International Francophone de Gérontologie, Brussels, Sep 2002 The 17<sup>th</sup> World Congress of the IAGG, Vancouver, Jul 2001 5. 6.

### Major courses attended

- $5^{\text{th}}$  ESSA summer school (escuela de verano) in agent-based modelling & simulation, 5 days, UAB, Barcelona 2014 1.
- EAACI summer school on allergy (<a href="http://www.eaaci.org">http://www.eaaci.org</a>), 4 days, Brindisi 2014
  Summer school (<a href="school">school</a> (<a hr 3. quantile regression, causality) taught by Pr. Joel Schwartz (HSPH), 5 days, Dipartimento di Epidemiologia, Roma 2013
- Summer school (skol hañv) in genetic epidemiology & statistics, 2 days, Roscoff 2013
- 16th summer school (Sommerschule) in epidemiology (in collaboration with Chappell Hill, NC), 5 days, Universität Ulm, Ulm 2005

### **ANNEXES**