Leptospirosis Modeling NIMBioS Working Group
May 10-13, 2016

Tuesday, May 10

8:00-9:00	Breakfast at NIMBioS
9:00-10:00	Review of report of previous meeting, plan of work for current meeting and logistics.

REPORT OF CURRENT MODELING AND EMPIRICAL STUDIES

10:00-10:30	"Evaluation of effectiveness of chemoprophylaxis" by Jorge Velasco-Hernandez
10:30-11:00	"Pathogen persistence, predominance, and quantification of infection source in a multi-host model" by Elizabeth Santiago
11:00-11:15	Break
11:15-12:15	Open discussion
12:15-1:30	Lunch at NIMBioS
1:30-2:00	"Early detection of leptospirosis cases" by Ibrahimh Halil Aslan, Suzanne Lenhart, Ben Fitzpatrick
2:00-2:30	"Leptospirosis and floods in Argentina" by Andrea Previtali
2:30-2:45	Break
2:45-3:15	"Portfolio decision design for leptospirosis interventions" by Matteo Convertino
3:15-5:00	Open discussion
5:00-	NIMBioS Reception

Wednesday, May 11

8:00-9:00	Breakfast at NIMBioS
9:00-9:30	"TBD" by Vincent Herbreteau
9:30-10:15	Work by modeling groups
10:15-10:30	Break
10:30-11:00	Work by modeling groups
11:00-12:00	Open discussion
12:00-1:00	Lunch
1:00-1:30	"Herd management interventions to reduce lepto transmission" by David Baca (skype)
1:30-3:00	Work by modeling groups
3:00-3:15	Break
3:15-5:00	Work by Groups
5:00-5:30	Open discussion

Thursday, May 12

8:00-9:00	Breakfast at NIMBioS

9:00-9:30	"An agent based model of leptospirosis transmission in an urban setting" by <u>Meghan Mason (Skype)</u>
9:30-10:30	Work in groups
10:30-10:45	Break/ Group Photo
10:45-12:00	Work in groups
12:00-1:00	Lunch at NIMBioS
1:00-2:00	Current knowledge of lepto: Review of parameters for various models by <u>Claudia Munoz-Zanzi</u>
2:00-3:00	Work by Groups
3:00-3:15	Break
3:15-5:00	Discussion on proposal and paper ideas.

<u>Friday, May 13</u>

8:00-9:00	Breakfast at NIMBioS
9:00-10:30	Open discussion: Last updates from work by groups, data needs, gaps, new models/papers
10:30-10:45	Break
10:45-12:00	Conclusions, homework, and planning of next (last) meeting.
12:00-1:00	Lunch at NIMBioS

Participants

	Name	Institution	Expertise	Email
1	Jorge Velasco-Hernandez, PhD	Institute of Mathematics, Universidad Nacional Autonoma de Mexico	PhD in Mathematics	jx.velasco@im.unam.mx
2	Matteo Convertino, PhD	Assistant Professor; Division of Environmental Health, University of Minnesota	PhD Civil and Environmental Engineering; numerical modeling of natural phenomena, fractals and spatial-temporal stochastic processes, complex networks.	matteoc@umn.edu
3	Matthew Gompper	Professor. Department of Fisheries and Wildlife Sciences, University of Missouri	PhD in Ecology; disease ecology, behavioral, population, and conversation ecology, conservation biology, dog/mammalian disease ecology	gompperm@missouri.edu
4	Suzanne Lenhart, PhD	Mathematics, University of Tennessee	PhD Mathematics; partial differential equations, optimal control, population and environmental models, disease models	lenhart@math.utk.edu
5	Zhilan Feng, PhD	Professor, Department of Mathematics, Purdue University	PhD in Applied Mathematics. Differential equations and dynamical systems, mathematical biology.	fengz@purdue.edu
6	Claudia Munoz-Zanzi, DVM, PhD	Associate Professor, Division of Epidemiology, University of Minnesota	PhD in Epidemiology; Epidemiology of infectious diseases, vet med, public health	munozzan@umn.edu
7	Rudy Hartskeerl, PhD	Royal Tropical Institute, Biomedical Research, Netherlands	PhD in Molecular Microbiology, leptospirosis diagnosis, animal models	r.hartskeerl@kit.nl
8	Andrea Previtali	Research Scientist. Universidad Nacional del Litoral, Santa Fe, Argentina	PhD Biological Sciences; ecology, modeling	andrea.previtali@gmail.com
9	Cristina Schneider, DVM, PhD*	Advisor, Human and Animal Health Interface, IHR/ Alert and Response and Epidemic Diseases, HSD/PAHO-Washington	PhD in Epidemiology; zoonosis, epidemiology, outbreak response	schneidc@paho.org
10	Vincent Herbreteau, PhD	Research Scientist, Espace-Dev, Institut de Recherche pour le Developpement (IRD), France	PhD in Health Geography, MS in Engineering; leptospirosis researcher, geographer, leptospirosis community ecology, health ecology.	vincent.herbreteau@ird.fr
11	Alejandro de la Pena-Moctezuma, DVM, MS, PhD *	Center for Training, Research, and Extension in Animal Production, College of Veterinary Medicine, Universidad Nacional Autónoma de México	PhD in Molecular Biology; leptospirosis research, pathogenesis, animals models, veterinary medicine.	delapema@unam.mx
12	Elizabeth Santiago	Institute of Mathematics, Universidad Nacional Autonoma de Mexico	PhD Computer Science	eliza.stgo@gmail.com
13	Suzanne O'Regan	NIMBioS	PhD Mathematics	s.m.oregan@gmail.com

* On skype

Additional participants

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15	Ben G. Fitzpatrick	Professor,Loyola Marymount University	PhD Mathematics	ben.fitzpatrick@lmu.edu
16	Meghan Mason	PhD student, U of Minnesota	PhD Epidemiology	Maso0299@umn.edu
17	David Baca	Post-doc. Math Institute, UNAM, Mexico	PhD Mathematics	dbc270582@gmail.com