



UNIVERSIDAD PERUANA
CAYETANO HEREDIA

GloCal Series

Development seminars

Larissa Otero

Universidad Peruana Cayetano Heredia

Lima, Peru

Where I am today

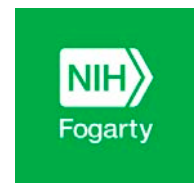
- Assistant professor at the School of Medicine, UPCH
- Senior researcher at Instituto de Medicina Tropical Alexander von Humboldt, UPCH
- K43 Emerging Global Leader Award (2018-2023), Fogarty International Centre, NIH

Main activities

- Designing and implementing a pilot cluster RCT of a behavioural intervention to increase IPT completion among children <5 years old who are TB contacts
 - 2019: designing the intervention, IRB and regulatory approvals (5 months), training
 - Dec 2019: pilot and start
- Teaching and research advising
- Collaboration in other studies
- Consultant for WHO on national reviews of TB epidemiology and surveillance systems

My career up to now

- **MD at UPCH (2004)**
- Field worker in a health survey in a rural area of Peru
- Research assistant, smear negative TB
- **Master in Public Health in Antwerp, Belgium (2009)**
- Clinical work on TB HIV in Uganda with MSF
- **PhD in Belgium and Peru, sandwich model (2016)**
- Field epidemiologist in Liberia, Ebola 2014 with MSF
- Short term training in person at UW and online at UCSF and UW
- GloCal fellow (first NIH funding)
- **K43 Emerging Global Leader Award**



My interests and career goals up to now

- **MD at UPCH (2004)** Infectious and tropical diseases **clinical** care
- Field worker in a health survey in a rural area
- Research assistant, smear negative TB
- **Master in Public Health in Antwerp, Belgium (2009)** Epidemiology and quantitative research **methods**
- Clinical work on TB HIV in Uganda with MSF
- **PhD in Belgium and Peru, sandwich model (2016)** Operational and **health system** barriers to optimal care
Qualitative methods and **implementation science**
- Field epidemiologist in Liberia, Ebola 2014 with MSF
- Short term training in person at UW and online at UCSF and UW
- GloCal fellow (first NIH funding)
- **K43 Emerging Global Leader Award** “...independent researcher at UPCH... public health interventions to reduce TB burden... positively impact the health of the Peruvian population with high quality evidence that informs health policy.”

What I valued most: training and mentorship

- Dedicated, experienced (in the field study and as mentor)
- Complementary >1 mentor

We considered sex, age, referral by health staff and level of service ^{are} potential confounders in the association of duration of cough with smear positivity. Confounding can be positive, then the adjusted OR becomes smaller than the crude OR; confounding ^{is} negative, ^{the} adjusted OR becomes larger than the crude OR.

Study 2
P51 why is blinded rechecking of routine smears LQAS 'highly motivating for the laboratory technicians'?

We considered that the rechecking process ^(if coupled with) ^{can} ^{be} motivating for staff doing routine repetitive work, but not the blinded nature of ^{it} which is only needed to avoid bias.

P52 "restraining ...to detect staining problems" This staining problem was not checked in the other studies; is this and other "preparation technique items" another possible study-targets?

Yes, ^{they are possible aspects for study, but not the most critical ones.} ^{we} included restraining of slides in the study as we acknowledged the fact ^{that there are some could be due to suboptimal staining technique} ^{NO!!! because staining FADES (check with lab person low cost)}

P 53 is it useful to do quality assessment if no changes are possible or implemented (ex. "repair of microscope") or is quality assessment then simply a lesson in frustration?

^{Indeed} ^{if} quality problems are detected in ^{an} external quality assessment, and not actions are taken to solve the problems, it is not useful. ^{The External Quality Assessment proposed by WHO and collaborators includes (1) on-site Evaluation 2) Panel of smears and 3) blinded rechecking. Blinded rechecking involves feedback on results and on-site evaluation includes the verification of equipment quality and function (Aziz, 2002). However, the extent to which this recommendations are adopted depends on the local laboratory supervisors.}

Consider the question ^{Join THIS QUESTION with the next one and do the same with your answers}

Handwritten notes on a page of text:

Handwritten notes include: "Handwritten?", "only if it's not... up for multi.", "3 papers. But then in the X6... (can be...)", "in this age group.", "I think it's... can't be used... before at hand (or not taken...)", "L build!", "see for your comment on figures: not true? what precisely in the data? other reason why this is not KM (then it would just be a frequency distribution)".

Table 2. Proportion of contacts with contact evaluations as function of contact, with index case and health facility characteristics, in (2005) Low for Peru 2015-2016

Contact	Female	Male	Total	Health facility
Age				
0-4	112 (96.7%)	106 (91.7%)	218 (94.2%)	100%
5-9	96 (83.8%)	80 (69.0%)	176 (76.4%)	94%
10-14	255 (222.0%)	187 (162.9%)	442 (192.5%)	95%
15-19	501 (436.8%)	383 (332.1%)	884 (387.4%)	97%
20-24	249 (216.0%)	163 (141.7%)	412 (181.3%)	93%
25-29	174 (151.2%)	106 (91.7%)	280 (122.9%)	88%
30-34	106 (91.7%)	64 (55.4%)	170 (74.1%)	85%
35-39	64 (55.4%)	32 (27.7%)	96 (41.6%)	73%
40-44	32 (27.7%)	16 (13.9%)	48 (20.8%)	53%
45-49	16 (13.9%)	8 (6.9%)	24 (10.4%)	58%
50-54	8 (6.9%)	4 (3.5%)	12 (5.2%)	67%
55-59	4 (3.5%)	2 (1.7%)	6 (2.6%)	67%
60-64	2 (1.7%)	1 (0.9%)	3 (1.3%)	67%
65-69	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
70-74	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
75-79	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
80-84	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
85-89	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
90-94	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
95-99	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%
100+	1 (0.9%)	1 (0.9%)	2 (0.9%)	50%

Handwritten notes on the table: "No problem may be that she has not... have it... it was not... contacts? ... results? ... just", "denominator staff in foot-catch", "this total is for contacts; make it more clear!", "I think it's... can't be used... before at hand (or not taken...)", "L build!", "see for your comment on figures: not true? what precisely in the data? other reason why this is not KM (then it would just be a frequency distribution)".

Table 3. IET duration and completion of sampling TB in contacts of index patients by TB index case group

Index case group	Completed	Not completed	Total
0-4	112 (96.7%)	106 (91.7%)	218 (94.2%)
5-9	96 (83.8%)	80 (69.0%)	176 (76.4%)
10-14	255 (222.0%)	187 (162.9%)	442 (192.5%)
15-19	501 (436.8%)	383 (332.1%)	884 (387.4%)
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95-99	1 (0.9%)	1 (0.9%)	2 (0.9%)
100+	1 (0.9%)	1 (0.9%)	2 (0.9%)

Handwritten notes on the table: "I could not get the end of... number... for the 1513... and when... was... initiated", "OK, but he also... can't be over... tables", "no more at all, just 45-43".

What I valued most: Learning from diverse opportunities and exposures

- Different settings:
 - Training: Peru, Belgium, US
 - Working: Peru (Lima and Alto Chicama (rural area), Uganda, Liberia, southern Africa)
- Different persons:
 - Peers from all over the world
 - Academics and researchers
 - Health staff and health authorities
 - Community

Field epidemiology for Ebola with MSF Monrovia, Liberia Dec 2014-Jan 2015



What I found/find most difficult

- Securing protected time for research
- Sitting down to analyze data and write
- Choosing between becoming an expert in a specific area vs multi interests
- Saying no
 - Most times to avoid losing an opportunity
- Planning and supervising field work takes a huge amount of time and is key for the success of the study

Living and working in Peru

Peru: Best geography (coastline, Andes, jungle), best food, home



Peru: Best geography (coastline, Andes, jungle), best food, home



Peru: Best geography (coastline, Andes, jungle), best food, home



Peru: large inequities, chaotic, traffic, weak institutions



Peru: large inequities, chaotic, traffic, weak institutions



Peru: large inequities, chaotic, traffic, weak institutions



Recommendations:

Grant applications

Disseminating research findings

Securing grant funding for research

- Support from experienced researchers - detailed feedback on grant proposals, both scientific and strategic feedback
- Planning and dedicating time to read, think and write will eventually result in a high quality scientific proposal
- Read the summary statement with an experienced researcher
- Be persistent

K43 submissions

2015: 36

SUMMARY STATEMENT
(Privileged Communication) *Release Date:* 04/06/2016 06:18 PM
Revised Date:

PROGRAM CONTACT:
Christine Jessup
301-496-9676
christine.jessup@nih.gov

Application Number: 1 K43 TW010375-01

Principal Investigator
OTERO, LARISSA

Applicant Organization: UNIVERSIDAD PERUANA CAYETANO HEREDIA

Review Group: ICP1
International and Cooperative Projects - 1 Study Section

Meeting Date: 03/21/2016 *RFA/PA:* PAR15-292
Council: MAY 2016 *PCC:* KFOREIGN
Requested Start: 07/01/2016 *Dual IC(s):* ES, MH

Project Title: Bridging the implementation gap in prevention of pediatric tuberculosis

SRG Action: Impact Score:36
Next Steps: Visit http://grants.nih.gov/grants/next_steps.htm
Human Subjects: 44-Human subjects involved - SRG concerns
Animal Subjects: 10-No live vertebrate animals involved for competing appl.
Gender: 1A-Both genders, scientifically acceptable
Minority: 5A-Only foreign subjects, scientifically acceptable
Children: 1A-Both Children and Adults, scientifically acceptable
Clinical Research - not NIH-defined Phase III Trial

Project Year	Direct Costs Requested	Estimated Total Cost
1	128,325	138,365
2	128,325	138,365
3	128,325	138,365
4	123,150	132,785
5	123,150	132,785
TOTAL	631,275	680,663

ADMINISTRATIVE BUDGET NOTE: The budget shown is the requested budget and has not been adjusted to reflect any recommendations made by reviewers. If an award is planned, the costs will be calculated by Institute grants management staff based on the recommendations outlined below in the COMMITTEE BUDGET RECOMMENDATIONS section.

2016: 33

SUMMARY STATEMENT
(Privileged Communication) *Release Date:* 04/05/2017
Revised Date:

PROGRAM CONTACT:
Christine Jessup
301-496-9676
christine.jessup@nih.gov

Application Number: 1 K43 TW010375-01A1

Principal Investigator
OTERO, LARISSA

Applicant Organization: UNIVERSIDAD PERUANA CAYETANO HEREDIA

Review Group: ICP1
International and Cooperative Projects - 1 Study Section

Meeting Date: 03/24/2017 *RFA/PA:* PAR17-001
Council: MAY 2017 *PCC:* KFOREIGN
Requested Start: 07/01/2017 *Dual IC(s):* MH, ES

Project Title: Bridging the implementation gap in prevention of pediatric tuberculosis

SRG Action: Impact Score:33
Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm
Human Subjects: 30-Human subjects involved - Certified, no SRG concerns
Animal Subjects: 10-No live vertebrate animals involved for competing appl.
Gender: 1A-Both genders, scientifically acceptable
Minority: 5A-Only foreign subjects, scientifically acceptable
Children: 1A-Both Children and Adults, scientifically acceptable
Clinical Research - not NIH-defined Phase III Trial

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2017: 23 funded!!!!

SUMMARY STATEMENT
(Privileged Communication) *Release Date:* 06/04/2018
Revised Date:

PROGRAM CONTACT:
Christine Jessup
301-496-9676
christine.jessup@nih.gov

Application Number: 1 K43 TW011137-01

Principal Investigator
OTERO, LARISSA

Applicant Organization: UNIVERSIDAD PERUANA CAYETANO HEREDIA

Review Group: ICP1
International and Cooperative Projects - 1 Study Section

Meeting Date: 05/08/2018 *RFA/PA:* PAR17-001
Council: AUG 2018 *PCC:* KFOREIGN
Requested Start: 10/01/2018 *Dual IC(s):* CA, DE, ES, MH

Project Title: Patient-centered intervention to prevent tuberculosis among children < 5 years old

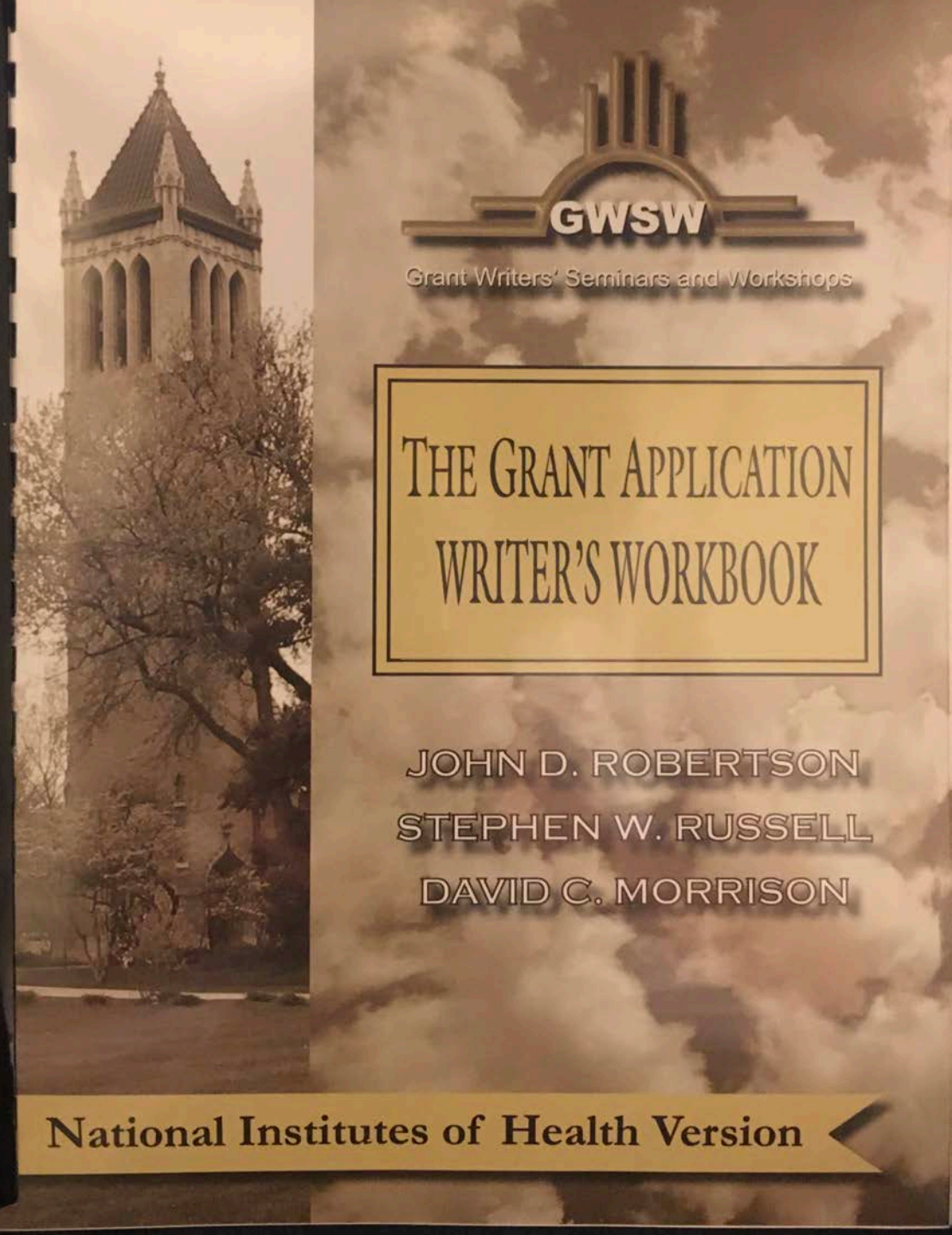
SRG Action: Impact Score:23
Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm
Human Subjects: 30-Human subjects involved - Certified, no SRG concerns
Animal Subjects: 10-No live vertebrate animals involved for competing appl.
Gender: 1A-Both genders, scientifically acceptable
Minority: 1A-Minorities and non-minorities, scientifically acceptable
Children: 1A-Both Children and Adults, scientifically acceptable


Project Year	Direct Costs Requested	Estimated Total Cost
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3	128,325	138,365
4	123,150	132,785
5	123,150	132,785
TOTAL	631,275	680,663

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Grant funding

- Look for resources
- Contact program officers
- Write to PIs



National Institutes of Health Version 

Dissemination of research findings

- Research is relevant when it actually improves the health of populations
- Plan and budget for it
- Knowledge of the context:
 - Is implementing the findings feasible and acceptable?
 - Are there challenges or barriers we are not aware of? E.g. Health system, human resources, cultural
 - Scientific evidence of impact is only one factor for the uptake of an intervention
- Learn to switch from academic and research language to colloquial language
- Use multiple methods!

Disseminating research findings: scientific journals and conferences

For journals, consider

- Scope
- Impact factor
- Indexation

For conferences:

- Scope
- Meetings and networking
- Place, time and budget
- Global and local

I go to:

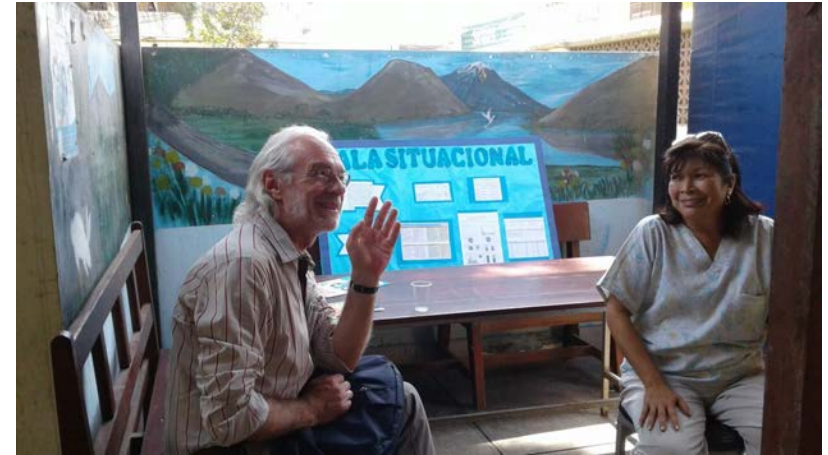
- Union conference
- Tropical Medicine and Infectious Diseases



Disseminating research findings: directly to users

Directly to users:

- Program managers
- Doctors and nurses delivering TB care
- In person
 - Power point presentation and discussion
 - Health facility visit
- In written form:
 - Policy brief: short, clear, summary of the article focusing on the problem, findings and recommendations



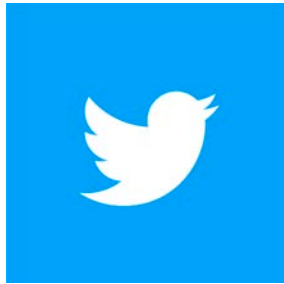
Disseminating research findings: with colleagues and experts

Member of the National Network of Pediatric TB, National TB Program

- Developed the National Guideline on Pediatric TB care
- Proposes research priorities



Disseminating research findings: social media



#epitwitter

#academictwitter

#medtwitter

#rstats

Acknowledgements

- Patrick Van de Stuyft (mentor, epi)
- Carlos Seas (career mentor at UPCH, ID)
- Tim Sterling (K43 mentor, TB expert)
- Joe Zunt (NIH collaborator, IS expert)
- Nicola Zetola (K43 collaborator, ID, TB expert)
- Eduardo Gotuzzo (ID)
- Tine Verdonck (epi)
- Elsa González (epi, teaching)
- Lena Shah (PhD, TB, epi)
- Theresa Ochoa (child health, field trials)
- Peruvian TB program: central and districtal
- Maribel Reyes (psych, nurse, field worker)
- Cila Montesinos (nurse, field worker)
- Partner, family and friends

