

## ECOHEALTH ALLIANCE BUDGET JUSTIFICATION

### A. Key personnel:

The PD/PI, Dr. Peter Daszak, will commit (b) (4), (b) (6) per year in each year of this budget. He will be primarily responsible for overseeing the project, general management, communication and collaboration with subawardees, as well as contributing to data analysis and manuscript writing.

Senior/Key Personnel, Dr. Epstein, will commit (b) (4), (b) (6) per year. Dr. Epstein will lead the design and implementation of the bat epidemiology fieldwork; supervise field teams, lab data analyses as well as conduct field training. He will participate in regular conference calls, help with data analysis, and draft manuscripts.

Senior/Key Personnel, Dr. Olival, will commit (b) (4), (b) (6) per year. Dr. Olival will direct the bat population genetics work, assist with data analyses, and manuscript writing. He will also advise on the modeling and provide training for field teams.

Senior/Key Personnel, Dr. Hosseini, will commit (b) (4), (b) (6) per year. Dr. Hosseini will perform spatial analyses and data mapping in collaboration with of Dr. Epstein and Dr. Olival.

### B. Other personnel:

A research scientist will be hired at 12 months time per year to provide direct assistance and oversight of field activities in China; maintain equipment and logistics; and coordinate animal and human sample shipment to the labs in China and in the US. This person will be based at EcoHealth Alliance, but will spend significant time in the field.

Mr. Aleksei Chmura (b) (4), (b) (6) per year) in Y1-Y5 will fulfill program assistance duties as well as conduct field research in China. Mr Chmura will coordinate regular calls, reports, maintain EcoHealth Alliance budget and financial reporting, draft subcontracts, and set-up project database advise field activities and assist with statistical analysis.

Once we secure IRBs for human sampling in Y1, we will hire three medical officers from China provincial CDCs as consultants to work in Guangxi, Hunan, and Fujian during Y2-Y5. These medical officers will be responsible for all IRB approved human sampling as well as maintaining cold chain for storage and shipping of samples.

For all EcoHealth Alliance personnel that will have salary covered by this grant, we have included the EcoHealth Alliance 5% per annum increase in salary.

### C. Fringe benefits.

Fringe benefits are calculated for EcoHealth Alliance's federally approved rate of 30% of base salary.

**D. Consultant:** Once all permits are in place in Y2-5, EcoHealth Alliance will contract three technician-consultants trained in phlebotomy – one in each province: Guangxi, Hunan, and Fujian. The technicians will conduct interviews as part of the human wildlife contact survey as well as collect blood samples from volunteers in animal markets. These will be given daily rate of \$67 for 5 months work per year (3 technicians x 5

months x 20 days per month x \$67 = \$20,000 per year) as well as funds to cover shipping and maintaining cold-chain (\$333 x 3 months x 3 provinces = \$3,000 per year) from provincial areas to Wuhan Institute of Virology. We also will support the technician's allowable room/transportation/food costs expected to average monthly at food (\$62), room (\$100), and transportation (\$100): \$262 x 3 technicians x 5 months = \$3,923 per year.

**E. Equipment:** N/A

**F. Supplies:** For Y1-Y5, we request annual support for tubes, syringes (5k); computer, phone, GPS (8k); lab reagents and buffer (10k); shipping (10k); PPE (10k); bat catching equipment (10k); food/accomodation for field team (10k); dry shippers, liquid Nitrogen (8k)

**G. Travel**

Domestic travel: \$4,400 is requested for years 1-5, comprising \$2,200 each for the PI (Dr. Daszak) and Senior/Key Personnel (Dr. Epstein) for travel to collaborating labs, to group meetings, and domestic scientific conferences to present results of our work.

International travel: \$33,000 is requested p.a. in Years 1-5. This will support 4 RT flights p.a. from New York to Shanghai or Guangzhou for the field veterinarian; 3 for the Senior/Key Personnel and 1 for the PI (Daszak) @ \$2500 ea; Food and accommodation at \$8,500 p.a. for Senior/Key Personnel and the field team in China including field activities. Field vehicle rental & driver hire \$500/wk x 9 wks.

**H. Participant support costs:** We are requesting consortium/contractual support for our two partners: East China Normal University and Wuhan Institute of Virology. We are requesting \$34,560 per year for Y1-Y5 for East China Normal University and for Wuhan Institute of Virology \$93,960 in Y1 and \$81,000 in Y2-Y5. These amounts are justified as follows:

**EAST CHINA NORMAL UNIVERSITY**

**EcoHealth Alliance Budget Justification, H. Participant Support Costs (ctd)**

a) Senior Personnel: Dr. Shuyi Zhang (b) (4), (b) (6) per year in Y1-Y5 Dr. Zhang will oversee the field sample collection and coordination of sample transfer to Wuhan or US partners. He will not request any salary from this grant. His salary will be covered by his institutional discretionary funds.

b) Other personnel: A full time field biologist, Dr. GuanJian Zhu (b) (4), (b) (6) per year), will implement field site visits, sample collection, and sample shipment to Wuhan or to Co-PIs. A full time field technician, Mr. Junpeng Zhang (b) (4), (b) (6) per year), will assist with sample collection, handling, and transport from field to lab as well as with sample shipping from East China Normal University to Wuhan or US partners. Both Mr. Zhang and Dr. Zhu will work full-time for in Y1-Y5.



c) Fringe Benefits: Fringe benefits are provided at ECNU rate of 5% to Dr. Zhu and Mr. Zhang in Y1-Y5.

d) Equipment: N/A

e) Supplies: \$560 are allocated per year in Y1-Y5 to support Field Biologist and Field Technician costs for telephone internet, and GPS: Phone =  $15 \times 2 = 30$ ; Internet =  $5 \times 2 = 10$ , GPS (batteries) =  $3.5 \times 2 = 10$ ; total per month = \$47.

f) Travel: Dr. Zhang will provide travel costs for Field Biologist and Field Technician from discretionary funding. We request \$2,000 per year to support Dr. Zhang and Dr. Zhu to travel to US for Co-Investigator meetings in either Boston or New York. Support will provide room and board for the two at per diem rate of \$250 for 4 days (=  $250 \times 4 \times 2 = \$2,000$ ). Dr. Zhang is already supported for travel funds of his own in those years.

g) Participant support costs: N/A

h) Other direct costs: N/A

i) Indirect Costs. All administrative costs are charged directly.

#### **WUHAN INSTITUTE OF VIROLOGY**

a) Key personnel. Dr. Zhengli Shi, Senior Virologist. (b) (4), (b) (6) per year in Y1-Y5. Dr. Shi will oversee the coronavirus screening for all samples collected in China. She will work with the PI, Co-Investigators, and Senior/Key Personnel to analyze data and write manuscripts. She will also coordinate data and material sharing with the co-Investigators. Dr. Shi will not take salary on this grant and is funded by discretionary sources at her Institute.

b) Other personnel:

Mr. Jialu Li, Lab technician. (b) (4), (b) (6) p.a. in Y1-Y5. The lab technician will test all bat and other animal samples collected in China for coronaviruses and will conduct molecular characterization and phylogenetic analyses of new coronavirus strains identified as well as catalog and ship samples and maintain a sample database.

#### **EcoHealth Alliance Budget Justification, H. Participant Support Costs (ctd)**

c) Fringe benefits: Wuhan Institute of Virology benefit rate of 5% is applied to salary for Mr. Jialu Li in Y1-Y5.

d) Equipment: The subcontractor will purchase one ultracold  $-80^{\circ}\text{C}$  freezer for dedicated sample storage for this project. \$12,960.