

UQ STRATEGIC FUNDING

2013 ANNUAL REPORT

Recipients of Strategic Funding are required to provide a short report to the Vice-Chancellor and/or DVC(R) on an annual basis.

Notes:

- Payment of any subsequent year's allocation will be subject to VC / DVC(R) approval of the annual report.
- Annual reporting requirements apply to strategic funding allocations of \$50,000 per annum or higher
- Recipients of funding for UQ Internal Schemes that require progress/annual reports (e.g. ECR/NSRG/Postdocs) are not required to complete this annual report.

1. ADMINISTRATIVE SUMMARY

Project No:	603465
DVC(R) Commitment ID No:	
Project Title:	Children's Health and Environment Program (CHEP) at UQ
Funds Received in Current Year:	2013
VC	\$100,000.00
DVC(R)	\$200,000.00
Lead CI / Funding Recipient Name:	Professor Peter Sly
Administering School/Centre:	Queensland Children's Medical Research Institute
Faculty/Institute:	Faculty of Health Science
Years of Funding (YYYY - YYYY):	2011-2015
Previous Variation Approved? (Y/N):	N

Note: Dot points are acceptable for the below items

2. SUMMARY OF OBJECTIVES

100 word summary of strategic objectives (as outlined in the original proposal)

- Provide a strategic opportunity for UQ to take a leadership role in the area of Children's Environmental Health nationally and internationally through global outreach, capacity building, education & training, public engagement, global change and public health.
- Provide UQ with a vehicle for interactions with international organisations.
- Will apply to become WHO Collaborating Centre.
- CHEP Terms of Reference (TOR) and Activities;

TOR 1: To conduct research aimed at understanding the mechanisms underlying the development of childhood diseases of environmental origin.

TOR 2: To strengthen international and intersectoral collaborative research on children's environmental health.

TOR 3: To educate and raise awareness about prevention of environmental exposures and environmentally-related diseases in children.

3. STATEMENT ON OUTCOMES

How have you progressed towards your stated objectives to date?

The Children's Health and Environment Program (CHEP) has made significant progress in delivering its stated objectives since its inception in 2011. In line with the Terms of Reference, CHEP has **strengthened its research collaborations on Children's Environmental Health** with intersectoral and international bodies including but not limited to; Queensland Health, UQ's School of Population Health, National Research Centre for Environmental Toxicology (ENTOX), World Health Organization and National Institute for Environmental Health Sciences, USA.

In order to increase education and awareness raising in relation to the prevention of environmental exposures and environmentally-related diseases in children, CHEP has **facilitated various education and training programs** as well as assisted CHEP staff in attending and delivering training courses at international conferences.

On October 7, 2013 CHEP was **designated as the World Health Organization (WHO) Collaborating Centre for Children's Health and the Environment**; the University of Queensland's first WHO Collaborating Centre.

Specific areas of progression:

Population Health: Strong research collaboration with Dr. Paul Jagals and Dr. Colleen Lau assessing the environmental contribution to the burden of disease in children; increasing the "child" focus of existing and new population health research; developing joint education programs in children's environmental health.

Toxic Exposures: Active collaborations have been established with Professor Jochen Mueller and the National Research Centre for Environmental Toxicology (ENTOX) combining expertise in quantifying exposures to harmful chemicals in the environment with paediatric epidemiology and health outcome expertise. A number of collaborative projects are in place, including;

- Optimising techniques for assessing exposure of infants and young children to environmental chemicals.
- Assessment of bisphenol A (BPA) exposure in Queensland children.
- Measuring environmental exposures and their health consequences in birth cohort studies.

Infections: Active research collaboration with Professor Paul Young within the Australian Infections Diseases Research Group, UQ, with the joint appointment of Dr. Keith Chappell to investigate polymicrobial infections in respiratory diseases in childhood.

Neurodevelopment and mental health: CHEP is collaborating on several projects investigating the impact of environmental exposures on neurodevelopment and mental health in children, including;

- Bullying in adolescents and children and the mental health implications led by Dr. James Scott, Dr. Rosana Norman and Sophie Moore.
- Early life exposures as risk factors for ADHD, in collaboration with the Barwon Infant Study (Professor Anne-Louise Ponsonby, A/Prof Peter Vuillermin and Dr Christos Symeonides, Murdoch Children's Research Institute and Professor Jochen Mueller, ENTOX)
- Impacts of exposure to eWaste in conjunction with the WHO eWaste network.

Education & Training:

- CHEP has run two intensive Children's Environmental Health Courses in line with the University of Queensland's Master of Public Health program.
- Dr Colleen Lau and Dr Paul Jagals have run multiple training workshops on Integrated Environmental Impact Assessments at international conferences.
- Prof Peter Sly and Dr. Leith Sly have run multiple training workshops on Children's Environmental Health at international conferences
- CHEP has worked with Kidsafe to develop new factsheets that specifically address the unique vulnerability of children in the present environment in Australia.
- In addition, CHEP helped with the revision of existing Kidsafe factsheets.

Public Engagement:

- CHEP was integral in the establishment of, and is home to the eWaste Network which aims to establish, further expand and foster cooperation through a network of experts and international stakeholders in the area of eWaste management by:
 - Closely coordinating intervention programs with WHO departments, UN agencies, WHO collaborating centres and other groups
 - Closely collaborating with WHO collaborating centres, partners, and NGOs and by involving further stakeholders
 - Setting up a platform for exchange as a tool to build this network
- CHEP was integral in the coordination of the "networking for effective collaboration in children's health" meeting and will continue to facilitate the coordination of the formed network. The network is comprised of WHO Collaborating Centres and other active partners in Children's Environmental Health. The overall objective of the network is to reduce morbidity and mortality of children by identifying and controlling environmental risks.
- Monthly newsletter on Children's Environmental Health on behalf of WHO and the United Nations Environment Program.
- During 2011 CHEP produced twelve monthly editions of the Children's Environmental Health International Initiatives newsletter, a joint venture from World Health Organization and the United Nations Environment Program.

Research Output/Publications 2013:

1. **Paynter S**, Weinstein P, Ware RS, Lucero MG, Tallo V, Nohynek H, Barnett AG, Skelly C, Simoes EA, **Sly PD**, Williams G. The ARIVAC Consortium. Sunshine, rainfall, humidity and child pneumonia in the tropics: time-series analyses. *Epidemiol Infect.* 2013;141:1328-36.
2. **Paynter S**, Ware RS, Lucero MG, Tallo V, Nohynek H, Simões EA, Weinstein P, **Sly PD**, Williams G; ARIVAC Consortium. Poor Growth and Pneumonia Seasonality in Infants in the Philippines: Cohort and Time Series Studies. *PLoS ONE.* 2013;8: e67528
3. **Heffernan AL**, Leontjew Toms LM, **Sly PD**, **Mueller JF**. Assessing Exposures to Emerging Environmental Contaminants in Children. *J Environ Immunol Toxicol* 2013; 1(2): 66-74. DOI: 10.7178/jeit.2
4. **Sly PD**. Environmental Contributions to Chronic Non-communicable Diseases: Redefining Environmental Diseases. *J Environ Immunol Toxicol* 2013; 1(2): 51-52. DOI: 10.7178/jeit.11
5. **Heffernan AL**, Aylward L, Eaglesham G, Hobson P, **Sly PD**, **Mueller J**. Age-related trends in urinary excretion of bisphenol A in Australian children and adults: Evidence from a pooled sample study using samples of convenience. *J Toxicol Environ Health A.* 2013 Nov 4;76(18):1039-55.
6. **Heffernan AL**, Aylward LL, Toms LM, **Sly PD**, Macleod M, **Mueller JF**. Pooled biological specimens for human biomonitoring of environmental chemicals: Opportunities and limitations. *J Expo Sci Environ Epidemiol.* 2013 Nov 6. doi: 10.1038/jes.2013.76. [Epub ahead of print]

7. **Chappell KJ**, Brealey JC, Mackay IM, Bletchly C, Hugenholtz P, Sloots TP, **Sly PD**, Young PR. Respiratory syncytial virus infection is associated with increased bacterial load in the upper respiratory tract in young children. *J Med Microbiol Diag*. 2013 Jul. S:1.
8. **Norman RE**, Veerman JL, **Scott J**, **Fantino E**, Bailie R, **Sly PD**, Cleghorn G. Environmental contributions to the leading causes of disease burden among Australian children. *J Pediatr Gastroenterol Nutr* 2013; 56(5):481-4.
9. **Norman RE**, Carpenter DO, **Scott J**, Brune MN, **Sly PD**. Environmental exposures: an under-recognized contribution to non-communicable diseases. *Reviews on Environmental Health* 2013; 28(1):59-65.
10. **Scott JG**, Duhig M, Hamlyn J, **Norman R**. Environmental Contributions to Autism: Explaining the Rise in Incidence of Autistic Spectrum Disorders. *Journal of Environmental Immunology and Toxicology* 2013; 1(2) 75-79.
11. **Scott JG**, **Moore SE**, **Sly PD**, **Norman RE**. Bullying in children and adolescents: A modifiable risk factor for mental illness. *Aust N Z J Psychiatry*. 2013 Dec 6. [Epub ahead of print]
12. **Grant K**, **Goldizen FC**, **Sly PD**, Brune M-N, Neira M, van den Berg M, **Norman RE**. Health consequences of exposure to e-waste: a systematic review. *The Lancet Global Health*. 2013, October 30
13. **Norman RE**, Ryan A, **Grant K**, Sitas F and **Scott JG**. Environmental contributions to childhood cancers. *Journal of Environmental Immunology and Toxicology* 2013; in press.
14. **Moore SE**, **Norman RE**, **Sly PD**, Whitehouse AJO, Zubrick SR, **Scott J**. Adolescent peer aggression and its association with mental health and substance use in an Australian cohort. *J Adolesc*. 2014 Jan;37(1):11-21.
15. **Sly PD**, Neira M, Collman G, Carpenter DO, Landrigan PJ, Van den berg M, Diaz Barriga D, Ruchirawat M, Laborde A, Pascale A, Heacock M, **Dalmau MT**, Suk WA. Networking to Advance Progress in Children's Environmental Health. *The Lancet Global Health*. In Press
16. **Lau C**, Weinstein P, Slaney D. The Importance of Surveillance for Informing Pre-travel Medical Advice: Imported Malaria in New Zealand, 1997 to 2009. *Vector Borne and Zoonotic Diseases* 2013.
17. **Lau C**, Hohl N. Immunogenicity of a modified intradermal pre-exposure rabies vaccination schedule using a purified chick embryo cell vaccine. An observational study. *Travel Medicine & Infectious Disease* 2013.
18. Derne B, Weinstein P, **Lau C**. Wetlands as Sites of Exposure to Water-Borne Infectious Diseases. In: Finalyson M, Horwitz P, Weinstein P, editors. *Wetlands and Human Health*. Edith Cowan University, Perth: Springer 2013.
19. Faddy H, Seed C, **Lau C**, Raclou V, Flower R, Smythe L, Burns M-A, Dohnt M, Craig S, Harley R, Weinstein P. Antibodies to *Leptospira* Among Blood Donors in High-risk Areas of Australia: Possible Implications for Transfusion Safety. *Emerg Infect Dis* 2013.
20. Gray DM, Willemsse L, Alberts A, Simpson S, **Sly PD**, Hall GL, Zar HJ. Lung function in African infants: A pilot study. *Pediatr Pulmonol*. 2013 Dec 11. [Epub ahead of print]
21. **Grant K**, Carpenter DO, **Sly LJ**, **Sly PD**. Environmental Contributions to Obesity and Type 2 Diabetes. *J Environ Immunol Toxicol* 2013; 1(2): 80-91. DOI: 10.7178/jeit.12
22. Symeonides C, Ponsonby AL, Vuillermin P, Anderson V, **Sly PD**. Environmental Chemical Contributions to ADHD and the Externalising Disorders of Childhood – A Review of Epidemiological Evidence. *J Environ Immunol Toxicol* 2013; 1(2): 92-104. DOI: 10.7178/jeit.21
23. Brune M-N, **Goldizen F**, Neira M, van den Berg M, Lewis N, King M, Suk WA, Carpenter DO, Arnold RG, **Sly PD**. Health effects of exposure to e-waste. *The Lancet Global Health*. 2013, June 28.
24. van den Berg M, **Sly PD**. Protecting the human fetus against effects of Bisphenol A. *The Lancet Diabetes and Endocrinology*. 2013, October.

4. EXPECTATIONS FOR COMING YEAR (if applicable)

How do you expect to use your funding allocation for the coming year?

Funds will be used according to the original budget allocation to cover staff, equipment and research costs. The CHEP application was for 5 year funding. CHEP and the WHO Collaborating Centre for Children's Health and the Environment is at the centre of an application for the NHMRC "Centre for Research Excellence for Assessing the Impact of Early Life Exposures to Environmental Toxicants on Non-communicable Diseases" that will be submitted in the current round.

Specific activities and research themes that will be undertaken by CHEP and its collaborative network will include:

- The WHO Collaborating Centres Children's Environmental Health Network and WHO eWaste network.
- Improving assessment of exposure to environmental toxicants in early life
- Identifying biomarkers of environmental exposures in early life and risk of chronic non-communicable disease
- Improving assessment of environmental risk factors for chronic non-communicable disease.
- Assessing the impact of early life environmental exposures on the risk for chronic disease.
- Developing the framework for Integrated Environmental Health Impact Assessments (IEHIA) for chronic non-communicable diseases
- Training workshops in children's environmental health and in IEHIAs.

VARIATION REQUEST – N/A

Recipients of Strategic Funding may seek approval to:

- 1) Access unallocated commitments in future years
- 2) Amend the funding timetable of future allocations.

Current Funding Timetable (amend years where appropriate):

Contributor	2013	2014	2015	2016	2017	Total
VC	\$0	\$0	\$0	\$0	\$0	\$0
DVC(R)	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

Note: this variation request is related to VC and DVC(R) contributions only. Faculties and Institutes may choose to use this information to manage changes to their internal funding obligations and commitments.

1. UNALLOCATED COMMITMENTS

The balance of any current year commitments not allocated by the end of the year will be forfeited. Typically, this will relate to funding in arrears expenditure that does not use up all of the committed funds during the year. A request to move the remaining balance of commitments to another year will need to be approved by the VC and/or DVC(R).

Amount of unallocated commitments (as at 31 December):

Contributor	2013
VC	\$0
DVC(R)	\$0
{Other contributors}	\$0
{Other contributors}	\$0
{Other contributors}	\$0
TOTAL	\$0

Proposed Funding Timetable (including reallocated funds):

Contributor	2014	2015	2016	2017	2018	Total
VC	\$0	\$0	\$0	\$0	\$0	\$0
DVC(R)	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

2. CHANGES TO FUNDING TIMETABLE

A request may be made to amend the timing and phasing of future commitments (while not exceeding the total funding approval).

Proposed Funding Timetable:

Contributor	2014	2015	2016	2017	2018	Total
VC	\$0	\$0	\$0	\$0	\$0	\$0
DVC(R)	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
{Other contributors}	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0

3. REASON FOR REQUEST

- Please provide a short explanation of the reason for your variation request.

CERTIFICATIONS

Note: Approvals by email are acceptable.

Annual Report:

Lead CI or Funding Recipient:

Name	Signature	Date
Professor Peter Sly		

Head of School/Centre/Institute:

I have read and endorse the annual report.

Name	Signature	Date
Professor Keith Grimwood		

Variation Requests Only:

Faculty/Institute Finance Manager:

I endorse the accuracy of the financial information.

Name	Signature	Date

USMG Member or Delegate (variation requests only):

I endorse the variation request.

Name	Signature	Date

SUBMISSION OF THE REPORT

Please email the completed form to strategicfunding@uq.edu.au