

Marie Curie Actions

International Research Staff Exchange Scheme

DESCRIPTION OF WORK

International Network for Early Childhood Health Development INECHD

Duration of the project: 4 years

Project summary

The general aim of the INECHD is to strengthen collaborative interdisciplinary research and knowledge transfer on early childhood health development and well-being. Recent research from numerous disciplines clearly highlights the importance of early childhood development (pregnancy to school entry) for the prevention of long term health and social adjustment problems. Large interdisciplinary and international research projects are needed to understand the interplay between bio-psycho-social mechanisms and to find effective preventive interventions. The network brings together partners from three continents: Europe (University College Dublin-Ireland and Inserm, France), North America (Laval and Montreal universities in Canada) and South America (Pontificia Universidade Catolica do Rio Grande do Sul in Brazil and Universidad Alberto Hurtado in Chile) to initiate, reinforce and extend research and knowledge transfer collaborations. Leaders of the program have extensive experience of longitudinal-experimental studies and international collaborations. Staff exchange will enable partners to share data banks from large population-based longitudinal studies and experimental interventions, plan new studies and develop a web-based tool to transfer best practice knowledge to service providers and policy makers in four of the European Community languages: English, French, Portuguese and Spanish. Over a four year period a total of 48 researchers will benefit from secondments. European researchers will spend a total of 200 months in North and South America, while South and North Americans will also spend a total of 200 months in Europe. An emphasis will be placed on training early career researchers for international and interdisciplinary longitudinal-experimental studies on early childhood development. These staff exchanges will lead to the development of research instruments adapted to the different cultures, comparable longitudinal and experimental research protocols, collaborative publications in high quality peer reviewed journals, and web-based knowledge acquisition and transfer instruments for researchers, service providers and policy makers. Knowledge transfer activities will include: mentoring, in vivo and web based annual scientific meetings, annual meetings with service providers and policy makers, seminars and workshops, symposia in international scientific meetings, development of a web-based Encyclopaedia on early childhood development, a Bulletin and a common web site. The collaborative research and knowledge transfer process that will be experimented among the five participating countries from three continents should enrich the European community as a whole.

Quality of the Exchange Programme

Objectives and relevance of the joint research exchange programme

The four specific objectives of the INECHD are to facilitate: a) analyses of existing longitudinal data banks on early childhood health and well-being development, and create new longitudinal studies; b) assessments of early childhood prevention program effects; c) transfer of best practices to early childhood service providers and decision makers; d) training early career researchers in early childhood health and well-being development and prevention.

The Network brings together partners from Europe (France and Ireland), North-America (Canada) and South-America (Brazil and Chile) to initiate, reinforce and extend research and knowledge transfer collaborations. Staff exchange will enable partners to share data banks from large population-based longitudinal studies and experimental interventions, plan new studies, train early career researchers and develop a web-based tool to transfer best practice knowledge to service providers and decision makers in four of the European Community languages: English, French, Portuguese and Spanish.

Table 1: List of Work Packages

Work package n°	Work package title	Beneficiary/Partner organisation short name	Start month	End month
1	Longitudinal studies data analyses	MONTREAL	Month 1	Month 48
2	Preventive intervention evaluations	UCD	Month 1	Month 48
3	Knowledge transfer instruments	LAVAL	Month 1	Month 48
4	Advanced training of early career researchers	Inserm	Month 1	Month 48
5	Management of partnership	UCD	Month 1	Month 48

Table 2: Work Packages

Note: All participants (beneficiaries and partners) will be involved in all the work packages

Work package number	1	Start date or starting event:	Month 1
Work package title	Longitudinal studies data analyses		
Beneficiary/Partner Organisation short name	Montréal		

Objectives

1. Compare early development of health and social adjustment problems in Canada, France and Ireland
2. Plan longitudinal studies on early development of health and social adjustment problems in Brazil and Chile
3. Create a web-based instrument to assess early health and social adjustment problems

Description of work

Task 1: With data from Canada, France and Ireland trace and compare developmental trajectories of early health and social adjustment problems, identify and compare predictors of developmental trajectories, and compare effects of child care use on early health and social adjustment problems. This work will require transfer of knowledge activities such as workshops and seminars on developmental trajectory methods, on prediction methodologies with different statistical packages, and presentations in the network wide meetings and in international scientific meetings.

Task 2: Analyse available data in Brazil and Chile to plan longitudinal studies, prepare data collection protocols and plan sample selection and data collection strategy for the longitudinal studies. This work will require networking activities such as workshops and seminars with experts who have designed and conducted state of the art longitudinal studies and presentations in the network wide meetings.

Task 3: Develop and test a web-based instrument to assess early health and social adjustment problems. This will involve adaptation of the instruments from the longitudinal studies, test of methods to get families to use the web to answer the questionnaire, and test feedback methods that will reinforce parent's participation. Participants will have workshops and seminars with experts who have developed similar instruments for similar populations and present the work in the network wide meetings.

Deliverables

D1: A report on results from analyses of the developmental trajectories of early health and social adjustment problems will be delivered at the 24th month after the start of the programme.

D2: A report of results on the prediction of developmental trajectories of early health and social adjustment problems will be delivered at the 48th month after the start of the programme.

D3: A report on data collection protocols, sample selection and data collection plan for longitudinal studies on early development of health and social adjustment problems in Brazil and Chile will be delivered at the 36th month after the start of the program.

Researchers involved

Leaders will be from U. Montréal (Canada) and Inserm (France) and all senior researchers will have some involvement in WP 1. There will be early career researchers from all participating institutions working on this WP. We estimate that $\frac{3}{4}$ of the early stage researchers will be involved because it is the WP that will provide more of the top publication opportunities.

Work package number	2	Start date or starting event:	Month 1
Work package title	Preventive intervention evaluations		
Beneficiary/Partner Organisation short name	UCD		

Objectives

4. Compare results from perinatal preventive interventions in France and Ireland
5. Plan evaluations of perinatal and child care preventive interventions in Brazil and Chile

Description of work

Task 4: Analyse and compare results from preventive interventions in France and Ireland and analyse available data on ongoing perinatal and child care preventive interventions in Brazil and Chile. This work will require workshops and seminars on statistical methods to compare experiments with small sample size, and on analyses of data from innovations that are not using RCTs (randomized control trials). Participants will present results in the network wide meetings and in international meetings.

Task 5: Write protocols for randomized control trials (RCTs) on perinatal and day care preventive interventions in Brazil and Chile. This will involve comparative analyses of previous trials including those from task 4. Participants will be involved in the workshops and seminars described in task 4.

Deliverables

D4: A report on results from the preventive interventions in France and Ireland will be delivered on the 36th month after the start of the programme.

D5: A report describing results from available data on ongoing perinatal and child care preventive interventions in Brazil and Chile, and the protocols for randomized control trials will be delivered on the 48th month after the start of the programme.

Researchers involved

Leaders will be from UCD (Ireland) and UAH (CHILE). Most senior researchers will have some involvement in WP 2. There will be early career researchers from all participant institution working on this WP. We estimate that half of the early stage researchers will have some involvement because of the natural link with WP1.

Work package number	3	Start date or starting event:	Month1
Work package title	Knowledge transfer Instruments		
Beneficiary/Partner Organisation short name	MONT		

Objectives

6. Insure quality of web-based encyclopaedia on early childhood development in four languages: English, French, Portuguese and Spanish

Description of work

Task 6.1: Select topics that are of common interests for each country. Topics will be selected with input from service providers and policy makers in all countries, but knowledge transfer requires choosing topics on which there is extensive research already done.

Task 6.2: Select internationally renowned experts to write encyclopaedia material on each topic. The procedure experimented over the past 9 years by the Canadian Centre of Excellence on Early Childhood Development will be used. Experts on each topic will also be selected in each country to contribute country-specific information. Senior network members will be responsible for this task.

Task 6.3: Coordinate plans of content specific for each country. Each country will identify service providers who will write the country specific information to facilitate uptake of information by each country

Task 6.4: Coordinate translation process to insure quality of translations. Experts from each country will validate information translated from another language.

Deliverables

D6: Two reports on the development of the Web-based encyclopaedia on early childhood development will be delivered. The first at 30 months and the second at 48 months.

Researchers involved

Leaders will be from ULaval (Canada) and PUCRS (Brazil). All senior researchers will be involved in WP 3. There will be some involvement from early career researchers, but this will be mainly for training purposes, unless the early career researcher has decided to specialise in knowledge transfer.

Work package number	4	Start date or starting event:	Month 1
Work package title	Early stage researcher training		
Beneficiary/Partner Organisation short name	Inserm		

Objectives

7. Train early career researchers from Brazil, Canada, Chile, France and Ireland for international and interdisciplinary research and knowledge transfer on early development and prevention of health problems

Description of work

Task 7: Team work by early career and senior researchers on longitudinal and experimental studies in Brazil, Canada, Chile, France and Ireland. This team work will involve interdisciplinary teams with members from different countries working on data analyses, publications, research protocol planning, and knowledge transfer to service providers and policy makers. It will also involve participation in local, network wide seminars, workshops and colloquia, as well as regular international meetings.

Deliverables

D7: Two reports will be delivered at 24 and 48 months on the content of the training activities and on the productivity of the participants in the network with a specific focus on the early career researchers.

Researchers involved

Leaders will be from each of the participating institutions. This WP obviously involves all early career researchers as trainees and all senior researchers as trainers. However, the training of early career researchers also involves interactions among the early career researchers.

Work package number	5	Start date or starting event:	Month 1
Work package title	Management of Partnership		
Beneficiary/Partner Organisation short name	UCD		

Objective

8. Insure that the objectives of the programme are attained by coordinating the activities so that the tasks will be done in time, the milestones reached, and the deliverables delivered.

Description of work

Task 8.1: Organise coordination meetings: a) general coordination meetings with the persons in charge of each site, b) coordination meetings with the researchers and collaborators at each site, c) coordination meetings with the early career participants, d) coordination meetings with all the participants in the program. These meetings will be done mainly through web-based telephone and visio conferencing.

Task 8.2: Supervise progress of work program (tasks, milestones, deliverables): a) through one on one interactions with persons responsible for a site, a task, a deliverable, b) coordination meetings, c) site visits, d) web based activities (creation and management of a web-site)

Task 8.3: Manage secondments: a) selection of persons seconded, b) organise and supervise financial arrangements and financial reports.

Task 8.4: Interactions with the European Commission for annual reports and final overall report.

Deliverables

D 8.1: Annual reports on progress of activities and financial operations

D 8.2: Final report

Researchers involved

The general co-ordinator with site co-ordinators.

Table 3: List of Milestones

List and schedule of milestones					
Milestone n°.	Milestone name	WPs n°.	Lead Beneficiary	Delivery date	Comments
1	Developmental trajectory analyses traced	1	MONT, Inserm	M12	Task 1
2	Web-based questionnaire ready to test	1	UCD, UAH	M12	Task 3
3	Encyclopaedia topics & Experts selected	3	LAVAL, PUCRS	M12	Tasks 6
4	Brazil and Chile data analysed	1	PUCRS & UAH	M24	Task 2
5	Early outcomes in French & Irish interventions compared	2	UCD, INSERM	M24	Task 4
6	Analyses on prediction of trajectories completed	1	MONT, Inserm	M36	Tasks 1
7	Sample selection and data collection plan completed	1	UCD, UAH	M36	Task 2
8	Draft paper on outcomes of French & Irish interventions	2	UCD, INSERM	M36	Task 4
9	Protocol for Brazil & Chile RCT ready	2	PUCRS & UAH	M36	Task 5
10	Encyclopaedia content specific for each country on web	3	LAVAL, PUCRS	M36	Task 6
11	Submitted articles on compared developmental trajectories and child care effects	1	MONT, Inserm	M48	Task 1
12	Longitudinal studies in Brazil & Chile ready for implementation	1	PUCRS & UAH	M48	Task 2
13	Web-based encyclopaedia implemented in English, French, Portuguese and Spanish	3	LAVAL, PUCRS	M48	Task 6

GANTT CHART of secondments

Number of months for each secondment per year

Secondments with South America preceded by * paid by Canadian partners

	Year 1	Year 2	Year 3	Year 4
Beneficiary 1 (UCD) (Coordinator)				
Researcher 1 To partner 1 LAVAL	12			
Researcher 2 To partner 2 MONT		12		
Researcher 3 To partner 3 PUCRS			12	
Researcher 4 To partner 4 UAH				12
Researcher 5 To partner 1 LAVAL			12	
Researcher 6 To partner 2 MONT				12
Researcher 7 To partner 1 LAVAL	1		1	
Researcher 7 To partner 2 MONT		1		1
Researcher 7 To partner 3 PUCRS	1		1	
Researcher 7 To partner 4 UAH		1		1
Researcher 8 To partner 1 LAVAL	1		1	
Researcher 8 To partner 3 PUCRS		1		1
Researcher 9 To partner 2 MONT		1		1
Researcher 9 To partner 4 UAH	1		1	
Researcher 10 To partner 3 PUCRS	2	1	2	1
Researcher 11 To partner 4 UAH	1	2	1	2

Table 4 cntd

	Year 1	Year 2	Year 3	Year 4
Beneficiary 2 (INSERM)				
Researcher 12 To partner 1 LAVAL		12		
Researcher 13 To partner 2 MONT	12			
Researcher 14 To partner 3 PUCRS				12
Researcher 15 To partner 4 UAH			12	
Researcher 16 To partner 1 LAVAL				12
Researcher 17 To partner 2 MONT			12	
Researcher 18 To partner 1 LAVAL	1		1	
Researcher 18 To partner 2 MONT		1		1
Researcher 18 To partner 3 PUCRS	1		1	
Researcher 18 To partner 4 UAH		1		1
Researcher 19 To partner 1 LAVAL	1		1	
Researcher 19 To partner 3 PUCRS		1		1
Researcher 20 To partner 2 MONT		1		1
Researcher 20 To partner 4 UAH	1		1	
Researcher 21 To partner 3 PUCRS	2	1	2	1
Researcher 22 To partner 4 UAH	1	2	1	2

Table 4 ctnd

	Year 1	Year 2	Year 3	Year4
Partner Organisation 1 (LAVAL)				
Researcher 23 To beneficiary 1 UCD	12			
Researcher 24 To beneficiary 2 INSERM		12		
*Researcher 25 To partner 3 PUCRS			12	
Researcher 26 To beneficiary 1 UCD	1		1	
*Researcher 26 To partner 3 PUCRS		1		1
Researcher 27 To beneficiary 2 INSERM	1		1	
*Researcher 27 To partner 4 UAH		1		1
Partner Organisation 2 (MONT)				
Researcher 28 To beneficiary 1 UCD			12	
Researcher 29 To beneficiary 2 INSERM	12			
*Researcher 30 To partner 4 UAH				12
Researcher 31 To beneficiary 1 UCD	1		1	
*Researcher 31 To partner 3 PUCRS		1		1
Researcher 32 To beneficiary 2 INSERM		1		1
*Researcher 32 To partner 4 UAH	1		1	

Table 4 ctnd	Year 1	Year 2	Year 3	Year4
Partner Organisation 3 (PUCRS)				
Researcher 33 To beneficiary 1 UCD	12			
Researcher 34 To beneficiary 2 INSERM		12		
*Researcher 35 To partner 1 LAVAL			12	
Researcher 36 To beneficiary 2 UCD				12
Researcher 37 To beneficiary 2 INSERM			12	
Researcher 38 To beneficiary 1 UCD	2		2	
Researcher 38 To beneficiary 2 INSERM		2		2
*Researcher 38 To partner 1 LAVAL	1		1	
*Researcher 38 To partner 2 MONT		1		1
Researcher 39 To beneficiary UCD	2	2	2	2
Researcher 40 To beneficiary INSERM	2	2	2	2
Partner Organisation 4 (UAH)				
Researcher 41 To beneficiary 1 UCD		12		
Researcher 42 To beneficiary 2 INSERM	12			
*Researcher 43 To partner 2 MONT			12	
Researcher 44 To beneficiary 1 UCD			12	
Researcher 45 To beneficiary 2 INSERM				12
Researcher 46 To beneficiary 1 UCD	2		2	
Researcher 46 To beneficiary 2 INSERM		2		2
*Researcher 46 To partner 2 MONT		1		1
*Researcher 46 To partner 1 LAVAL	1		1	
Researcher 47 To beneficiary 1 UCD	2	2	2	2
Researcher 48 To beneficiary 2 INSERM	2	2	2	2

Transfer of Knowledge

Quality and mutual benefit of the transfer of knowledge

Knowledge transfer is the essence of this exchange program. The programme includes two level of knowledge transfer. The first level is knowledge transfer between researchers; the second is knowledge transfer to service providers and policy makers. Both levels are important, first because the network tries to link fundamental knowledge on child development to practical interventions that will prevent developmental problems, secondly because the interventions can be used to acquire fundamental knowledge. From this perspective fundamental and applied studies need to be coordinated, and researchers need to interact with service providers and policy makers.

Knowledge transfer among researchers:

- i) *Mentoring of early career researchers: 12 months each*
- ii) *Annual in vivo meetings: annual*
- iii) *Annual web-based meetings: annual*
- iv) *Local seminar-workshops: Senior researchers will be required to give at least one seminar-workshop per month of secondment, while early career researchers will be required to participate in the local activities and give at least one web-based presentation*
- v) *Programme web site: scientific communications (power point, working papers, publications) will be posted on the web site for information and comments. Information on the activities of the members and the network will also be placed on the web site.*
- vi) *International scientific meetings: Early career researchers will be encouraged to participate in high quality scientific meetings whenever possible. We will specifically encourage members of the network to organize joint symposia in these meetings which will include participants from the different countries.*

Knowledge transfer to service providers and policy makers.

- vii) *Web-based Encyclopaedia on early childhood development: The tasks to insure this quality are described in Table 2.*
- viii) *Annual International conference: annual*
- ix) *Annual Bulletin: annual*

5.2 Adequacy and role of staff exchanged with respect to the transfer of knowledge

The major focus of the exchanges is to help the early career researchers learn to work in an interdisciplinary and international environment with the best tools available and with of view of creating better tools from an international perspectives.

The early career and senior researchers will thus work in local teams but in an interdisciplinary and international environment which includes service providers and policy makers.

6. Implementation

6.1 Capacities (expertise/human resources/facilities/infrastructure) to achieve the objectives of the planned cooperation

All of the partners have initiated collaborations at different levels. All of the northern hemisphere partners have strong on-going longitudinal-experimental studies. The research funding of the Irish, French and Canadian partners totals more than 10 million euro a year. Each has ample expertise, human resources, facilities and infrastructure to easily absorb yearly 2-3 early career researchers for 12 months and 2-3 senior researchers for short stays. The South American partners have extremely modern facilities. The aim of the program is to

help them develop the human resource expertise. Their links to governmental agencies (CONASS and JUNJI) are extremely important resources. The CONASS and JUNJI have the human resources needed to do the studies. From a northern hemisphere perspective there are numerous early career researchers who are already involved in collaborations between the European partners and Canada. The Canadian partners are already investing substantially in the France-Canada link and are ready to pay for the exchanges between Canada and the South American countries.

6.2 Appropriateness of the plans for the overall management of the exchange programme

In each research unit a highly experienced researcher acts as coordinator to oversee the management of the program in his research unit.

The six coordinators act as the steering committee.

The committee will have a telephone meeting every second month and an annual in vivo meeting. Support for the detached and incoming personnel will be the responsibility of the local coordinator.

7. Impact

7.1 Relevance of the proposed partnership to the area of collaboration and for the European Research Area¹

The focus is on the early childhood services which are believed to have a long term impact on health and well-being.

The early career researchers who will participate in this network will acquire the publishing productivity that makes them more competitive, and acquire the service provision and policy perspective that will help them establish working relationships with European service providers and policy makers.

7.2 Potential to develop lasting collaboration with the eligible *Third country* partners

The long term is the essence of the type of research which is done. Longitudinal studies of child development need long term investments by investigators and funders. The long term has a very high probability of working if the short term works. The early career researchers participating in this programme will be interested in making it a career-long commitment.

We expect that the outcome of this programme will be an increase in the number of European and South American countries who will want to join the network.

The network activities will provide an opportunity to initiate:

- i) New studies,
- ii) New partnerships
- iii) Find new funding.

8. Ethics

The four years covered by this proposal the research work is done on secondary data for which ethical approval was given by the competent local authorities. Copies of ethical approval are included
