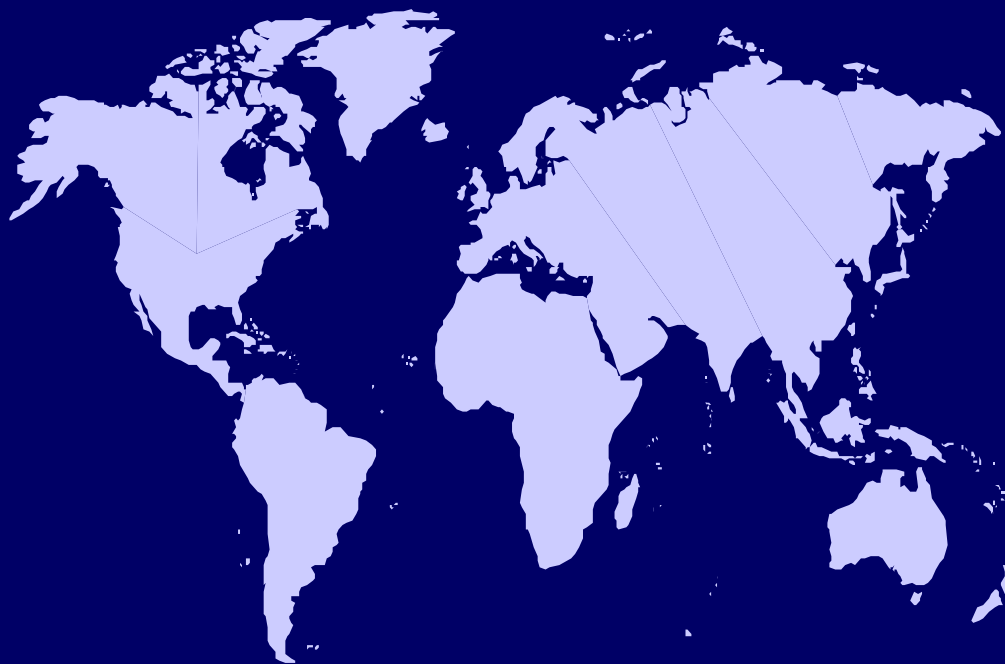


The ISAAC Story

The International Study of Asthma and Allergies in Childhood



The ISAAC Story
ISBN: 978-0-473-20211-8
© November 2011
The International Study of Asthma and Allergies in Childhood Steering Committee
Department of Paediatrics: Child and Youth Health
The University of Auckland
Private Bag 92019
Auckland Mail Centre
Auckland 1142
New Zealand
<http://isaac.auckland.ac.nz/story/>

Suggested citation: Asher MI, Strachan DP, Pearce N, García-Marcos L (Eds). *The ISAAC Story: The International Study of Asthma and Allergies in Childhood*. Auckland, New Zealand: The International Study of Asthma and Allergies in Childhood 2011.

The ISAAC Story

The International Study of Asthma and Allergies in Childhood



M. Innes Asher, David P. Strachan, Neil Pearce & Luis García-Marcos, Eds.

The ISAAC Story

Acknowledgements

Funding of ISAAC Phase One

ISAAC was open to any collaborator who agreed to adhere to the protocol. Countries in which there was little existing information about asthma, rhinoconjunctivitis and eczema were particularly encouraged to participate. Each centre was responsible for obtaining its own funding. There were many field workers and funding agencies who supported data collection and national, regional and international meetings, including the meetings of the ISAAC Steering Committee. Unfortunately, these are too numerous to mention and are acknowledged elsewhere in local publications.

The ISAAC International Data Centre was funded by:

- The Health Research Council of New Zealand,
- The Asthma and Respiratory Foundation of New Zealand,
- The National Child Health Research Foundation,
- The Hawke's Bay Medical Research Foundation,
- The Waikato Medical Research Foundation,
- Glaxo Wellcome New Zealand
- Astra New Zealand.

Glaxo Wellcome International Medical Affairs funded the regional co-ordinating centres.

Funding of ISAAC Phase Two

The coordination and central laboratory analyses of the European centres were funded by the Fifth Framework Programme of European Commission (QLK4-CT-1999-01288).

The following bodies funded the local studies.

Spain: (Almeria, Cartagena, Madrid, Valencia)

Fondo de Investigacion Sanitaria (grant code 00/1092E).

Turkey: (Ankara)

Scientific and Technical Research Council of Turkey (grant code SPAG-2237),

Treatment and Research Foundation of Turkey for Allergy, Asthma and Immunology,

The Research foundation of Hacettepe University, Faculty of Medicine.

Greece: (Athens, Thessaloniki)

The Thorax Foundation Research Center.

France: (Créteil)

French Institute of Health and Medical Research (Institut National de la Santé et de la Recherche Médicale (INSERM), grant code IDS 337/4D001D and 737/69480),

Ministère de l'Emploi et de la Solidarité (grant code 227/7HL02D),

Mutuelle Générale de l'Education Nationale (grant code 257/8PL01F),

Agence de l'Environnement et de la Maitrise de l'Energie ADEME/PRIMEQUAL 96 (grant code FJ012B).

Germany: (Dresden, Munich, Ulm)

German Ministry of Education and Research (grant code 01 EE 9411-3; Dresden, Munich),

Rudolf and Clothilde Eberhardt-Foundation (Ulm).

Italy: (Rome)

Lazio Regional Health Authority.

New Zealand: (Hastings)

Health Research Council of New Zealand,

Asthma and Respiratory Foundation of New Zealand,

Hawkes Bay Medical Research Foundation.

Sweden: (Linköping, Östersund)

The Swedish Foundation for Health Care Sciences and Allergy Research.

India: (Mumbai)

Jaslak Hospital & Research Centre.

West Bank: (Ramallah)

Al-Quds University, Directorate General for International Cooperation and Belgian Technical Cooperation.

The Netherlands: (Utrecht)

Dutch Ministries of the Environment, of Health and of Transport.

UK: (West Sussex)

South Thames National Health Service Regional and Development project SPGS.

The centres in Mumbai, Ankara, Kintampo (Ghana), Riga (Latvia), Tallinn (Estonia), Tblisi (Georgia) and Tirana (Albania) were supported, at least in part, by European members of the ISAAC Steering Committee.

Funding Organisations



The ISAAC Story



Funding of ISAAC Phase Three

As with ISAAC Phase One, ISAAC Phase Three was open to any collaborator who agreed to adhere to the protocol and each centre was requested to provide its own funding. The programme was funded by the many funding bodies throughout the world that supported the individual ISAAC centres and collaborators and their meetings. In New Zealand ISAAC was funded by:

- The Health Research Council of New Zealand,
- The Asthma and Respiratory Foundation of New Zealand,
- The Child Health Research Foundation,
- The Hawke's Bay Medical Research Foundation,
- The Waikato Medical Research Foundation,
- Glaxo Wellcome New Zealand,
- The NZ Lottery Board
- Astra Zeneca New Zealand.

Travel grants were awarded by the Auckland Medical Research Foundation and the Maurice & Phyllis Paykel Trust.

Glaxo Wellcome International Medical Affairs supported the regional coordination and the ISAAC International Data Centre.

The ISAAC International Data Centre is currently funded grants from the BUPA Foundation, The Auckland Medical Research Foundation and The New Zealand Lotteries Commission.

The ISAAC Story

Contents

Acknowledgements	3
Contents	5
Editors Introduction - <i>David Strachan and Innes Asher</i>	10
Contributors	11
Tribute to Stephan Weiland	22

Background

Rationale for ISAAC	23
Aims of ISAAC	24
Origins of ISAAC	25
Asthma epidemiology in the 1980s <i>Michael Burr</i>	25
The origins of ISAAC: a German perspective <i>Ulrich Keil</i>	26
The origins of ISAAC: a New Zealand perspective <i>Innes Asher</i>	27
The origins of ISAAC: a United Kingdom perspective <i>Ross Anderson</i>	28
The origins of Phase Two surveys in Germany <i>Erika von Mutius</i>	29
The ISAAC Toolbox	30
The written questionnaire for asthma and wheezing <i>David Strachan</i>	31
The video questionnaire for asthma and wheezing <i>Julian Crane</i>	31
Asthma alone, or asthma and allergies? <i>David Strachan</i>	32
Development of the rhinitis questionnaire <i>David Strachan and Bonnie Sibbald</i>	32
Development of the eczema questionnaire <i>David Strachan and Hywel Williams</i>	33
Bronchial responsiveness (link to report?) <i>Innes Asher</i>	34
Measuring eczema by questionnaire and examination <i>Hywel Williams</i>	34
Development of Phase Two modules <i>David Strachan</i>	35
The Phase Three risk factor questionnaire <i>Ed Mitchell</i>	35
Development of ISAAC	35
The globalization of ISAAC <i>Neil Pearce</i>	36
The recruitment of Phase One regional co-ordinators <i>David Strachan</i>	36
The globalization of ISAAC Phase Two <i>David Strachan</i>	37
ISAAC in the context of other European initiatives <i>Bert Brunekreef</i>	37
ISAAC in the 21st century <i>Carsten Flohr, Gary Wong</i>	38
The global context of ISAAC in the 21st century	38
ISAAC Data Centres	39
The Auckland Data Centre <i>Tadd Clayton</i>	39
The Ulm Data Centre <i>Gudrun Weinmayr</i>	40
Communications within ISAAC <i>Philippa Ellwood</i>	40
ISAAC Diary (Time Line)	41
ISAAC Steering Committee Time Line	45

Methods

Study Design	46
Phase One	46
Phase Two	47
Phase Three	47
Quality Assurance <i>Philippa Ellwood</i>	48
Consent and Confidentiality <i>Philippa Ellwood</i>	49
Data Management <i>Tadd Clayton</i>	50
Statistical Analyses <i>David Strachan, Alistair Stewart and Tadd Clayton</i>	51
Statistical methods used in ISAAC: Phase One	51
Statistical methods used in ISAAC: Phase Two	51
Statistical methods used in ISAAC: Phase Three prevalence maps and time trend analyses	52
Statistical methods used in ISAAC: Phase Three risk factor analyses	52
Statistical methods used in ISAAC: Centre-level differences adjusted for individual-level risk factors	53
Statistical methods used in ISAAC: Ecological analyses at the centre level	53
Graphs and Maps <i>Tadd Clayton</i>	54

Findings

Introduction	55
Overview of Global Findings	55
Worldwide Publications	59
Phase One Prevalence	63
Phase One Ecological	64
Phase Two	65
Phase Three Time Trends	67
Phase Three World Maps	68
Phase Three Risk Factors	69
Methodological Studies	70

The ISAAC Story



Centres

Regions

72-88

Countries Cont.

Africa
Asia-Pacific
Eastern Mediterranean
Indian Sub-Continent
Latin America
North America
Northern and Eastern Europe
Oceania
Western Europe

Nicaragua
Nigeria
Niue
Norway
Nouvelle Calédonie
Pakistan
Palestine
Panamá
Paraguay
Peru
Philippines
Poland
French Polynesia
Portugal
Republic of Ireland
Republic of Macedonia
République de Guinée
Republique Democratique du Congo
Reunion Island
Romania
Russia
Samoa
SAR China
Serbia and Montenegro
Singapore
South Africa
South Korea
Spain
Sri Lanka
Sudan
Sultanate Of Oman
Sweden
Syria
Taiwan
Thailand
Togo
Tokelau
Tonga
Trinidad and Tobago
Tunisia
Turkey
Ukraine
United Kingdom
Uruguay
USA
Uzbekistan
Venezuela
Vietnam

Countries

89-164

Albania
Algeria
Argentina
Australia
Austria
Barbados
Belgium
Bolivia
Brasil
Bulgaria
Cameroon
Canada
Channel Islands
Chile
China
Colombia
Congo
Cook Islands
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Ecuador
Egypt
El Salvador
Estonia
Ethiopia
Fiji
Finland
France
Gabon
Georgia
Germany
Ghana
Greece
Honduras
Hungary
Iceland
India
Indonesia
Iran
Isle of Man
Italy
Japan
Jordan
Kenya
Kuwait
Kyrgyzstan
Latvia
Lebanon
Lithuania
Malaysia
Malta
Mexico
Morocco
Netherlands
New Zealand

Centres

165-352

A Coruña, Spain
Addis Ababa, Ethiopia
Adelaide, Australia
Akola, India
Aleppo, Syria
Algiers, Algeria
Al-Khod, Sultanate Of Oman
Almeria, Spain
Alor Setar, Malaysia
Amman, Jordan
Anglia and Oxford, United Kingdom
Ankara, Turkey
Antwerp, Belgium
Apia, Samoa
Aracaju, Brasil
Ascoli Piceno, Italy
Asturias, Spain

The ISAAC Story

Centres Cont.

Asunción, Paraguay
Athens, Greece
Auckland, New Zealand
Bali, Indonesia
Balykchi, Kyrgyzstan
Bandung, Indonesia
Bangalore, India
Bangkok, Thailand
Barbados, Barbados
Barcelona, Spain
Bari, Italy
Barranquilla, Colombia
Bay of Plenty, New Zealand
Beijing, China
Beirut, Lebanon
Belgrade, Serbia And Montenegro
Belo Horizonte, Brasil
Benslimane, Morocco
Bikaner, India
Bilbao, Spain
Birjand, Iran
Bishkek, Kyrgyzstan
Bogotá, Colombia
Bombay (17), India
Bombay (16), India
Bombay (18), India
Bombay (29), India
Borivali, India
Boulmene, Morocco
Brasília, Brasil
Brazzaville, Congo
Buenos Aires, Argentina
Cádiz, Spain
Cairo, Egypt
Calama, Chile
Cali, Colombia
Cape Town, South Africa
Caracas, Venezuela
Cartagena, Spain
Caruaru, Brasil
Casablanca, Morocco
Castellón, Spain
Central Santiago, Chile
Chandigarh, India
Chantaburi, Thailand
Chapel Hill, Usa
Chennai (3), India
Chiang Mai, Thailand
Chiangrai, Thailand
Chicago (3), Usa
Chicago (4), Usa
Chiloe, Chile
Chongqing, China
Christchurch, New Zealand
Ciudad de México (1), Mexico
Ciudad de México (3), Mexico
Ciudad de México (4), Mexico
Ciudad Victoria, Mexico
Cluj, Romania
Coimbra, Portugal
Colleferro-Tivoli, Italy
Conakry, République De Guinée
Córdoba, Argentina
Cosenza, Italy
Costa Rica, Costa Rica
Cremona, Italy
Crétail, France
Cuernavaca, Mexico
Curitiba, Brasil
Davangere, India
David-Panamá, Panamá
Dresden, Germany
Eldoret, Kenya
Emilia-Romagna, Italy
Empoli, Italy
Feira de Santana, Brasil
Firenze, Italy
Frosinone, Italy
Fukuoka, Japan
Funchal, Portugal
Grand Tunis, Tunisia
Greifswald, Germany
Guangzhou, China
Guayaquil, Ecuador
Guernsey, Channel Islands
Hamilton, Canada
Hawkes Bay, New Zealand
Helsinki, Finland
Ho Chi Minh City, Vietnam
Hong Kong 13-14, Sar China
Hong Kong 6-7, Sar China
Ibadan, Nigeria
Ipoh, Malaysia
Islamabad, Pakistan
Isle of Man, Isle Of Man
Itajaí, Brasil
Jaipur, India
Jalalabat, Kyrgyzstan
Jersey, Channel Islands
Jima, Ethiopia
Jodhpur, India
Karachi, Pakistan
Kärnten, Austria
Kaunas, Lithuania
Kharkiv, Ukraine
Khartoum, Sudan
Khon Kaen, Thailand
Kinshasa, République Democratique Du Congo
Kintampo, Ghana
Klang Valley, Malaysia
Kota Bharu, Malaysia
Kottayam, India
Krakow (1993), Poland
Kraków (1995), Poland
Kuopio County, Finland
Kutaisi, Georgia
Kuwait, Kuwait
La Habana, Cuba
Lapland Area, Finland
Lattakia, Syria
Lima, Peru
Linköping, Sweden
Lisbon, Portugal
Lome, Togo
Lucknow, India
Ludhiana, India
Maceió, Brasil
Madras (2), India
Madras (3), India
Madrid, Spain
Malta, Malta
Managua, Nicaragua
Manaus Amazonas, Brasil
Mantova, Italy
Marrakech, Morocco
Marseille, France
Melbourne, Australia
Mérida, Mexico
Metro Manilla, Philippines

The ISAAC Story



Centres cont.

Mexicali Valley, Mexico
Milano, Italy
Monterrey, Mexico
Montevideo, Uruguay
Montpellier, France
Moscow, Russia
Muar, Malaysia
Mumbai (16), India
Mumbai (18), India
Mumbai (29), India
Munich, Germany
Münster, Germany
Nagpur, India
Nairobi, Kenya
Nakorn Pathom, Thailand
Narva, Estonia
Nelson, New Zealand
Netherlands, Netherlands
Netherlands (Utrecht), Netherlands
Neuquén, Argentina
New Delhi (7), India
Neyveli, India
Nis, Serbia And Montenegro
Niue Island, Niue
North east and Yorkshire, United Kingdom
North Gaza, Palestine
North Thames, United Kingdom
North West, United Kingdom
Nouvelle Calédonie, Nouvelle Calédonie
Nova Iguaçu, Brasil
Novi Sad, Serbia And Montenegro
Novosibirsk, Russia
Nuku alofa, Tonga
Orissa, India
Östersund, Sweden
Palermo, Italy
Pamplona, Spain
Panevezys, Lithuania
Passo Fundo, Brasil
Paysandú, Uruguay
Perth, Australia
Pessac, France
Pichincha, Ecuador
Pimpri, India
Podgorica, Serbia And Montenegro
Polokwane, South Africa
Polynésie Française, French Polynesia
Port-Gentil, Gabon
Portimao, Portugal
Porto, Portugal
Porto Alegre, Brasil
Poznan, Poland
Provincial Korea, South Korea
Pune, India
Punta Arenas, Chile
Quito, Ecuador
Rabat, Morocco
Ramallah, Palestine
Rarotonga, Cook Islands
Rasht, Iran
Rasta Peth, India
Recife, Brasil
Rep. Of Ireland, Republic Of Ireland
Reunion Island, Reunion Island
Reykjavik, Iceland
Rīga, Latvia
Rijeka, Croatia
Roma, Italy
Rosario, Argentina
Rosario City, Argentina
Rural Kharkiv, Ukraine
Rural Latvia, Latvia
Rural Santa Maria, Brasil
Salta, Argentina
Salvador, Brasil
Salzburg, Austria
Samarkand, Uzbekistan
San Pedro Sula, Honduras
San Salvador, El Salvador
San Sebastián, Spain
Santa Cruz, Bolivia
Santa Maria, Brasil
Santo Andre, Brasil
São Paulo, Brasil
São Paulo West, Brasil
Sarasota, Usa
Saskatoon, Canada
Scotland, United Kingdom
Seattle, Usa
Semarang, Indonesia
Seoul, South Korea
Shanghai, China
Siauliai, Lithuania
Siena, Italy
Singapore, Singapore
Skopje, Republic Of Macedonia
Sofia, Bulgaria
Sombor, Serbia And Montenegro
Sousse, Tunisia
South and West, United Kingdom
South Santiago, Chile
South Thames, United Kingdom
Sri Lanka, Sri Lanka
St Augustine, Trinidad And Tobago
Stockholm/Uppsala, Sweden
Strasbourg, France
Sunderland, United Kingdom
Surrey/Sussex, United Kingdom
Suva, Fiji
Svábhegy, Hungary
Sydney 13-14, Australia
Sydney 6-7, Australia
Szeged, Hungary
Taipei, Taiwan
Tallinn, Estonia
Taoyuan, Taiwan
Tartous, Syria
Tashkent, Uzbekistan
Tbilisi, Georgia
Tehran, Iran
Thessaloniki, Greece
Tibet, China
Tiranë, Albania
Tobago, Trinidad And Tobago
Tochigi, Japan
Tokelau, Tokelau
Toluca, Mexico
Tong Zhou, China
Torino, Italy
Trent, United Kingdom
Trento, Italy
Tromsø, Norway
Turku and Pori County, Finland
Urban Cote d'Ivoire, Cote D'Ivoire
Urfahr-Umgebung, Austria
Uruguaiana, Brasil
Valdivia, Chile
Valencia, Spain
Valladolid, Spain
Vancouver, Canada

The ISAAC Story

Centres cont.

Verona, Italy
Villahermosa, Mexico
Viterbo, Italy
Vitória da Conquista, Brasil
Wales, United Kingdom
Wellington, New Zealand
West Algiers, Algeria
Wilaya of Algiers, Algeria
West Marne, France
West Midlands, United Kingdom
West Sussex, United Kingdom
Wulumuqi, China
Wulumuqi(9), China
Yaounde, Cameroon
Zanjan, Iran

Appendices

ISAAC Maps	354
List of Centres	363
Summary of all publications	374
Publications	377
References	397
Steering Committee Photos	399

The ISAAC Story



- 1.96 million children
- 306 research centres
- 105 countries
- 53 languages
- >500 publications
- >20 years of research

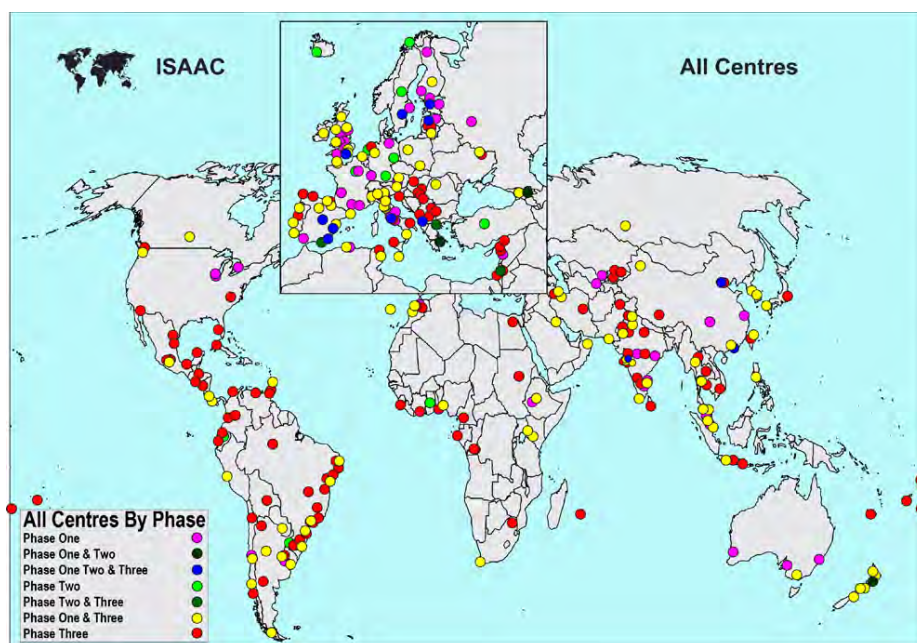


Welcome to the ISAAC Story, a website presentation of the history and findings of the International Study of Asthma and Allergies in Childhood. The story can be explored online through the menus on this website.

This is the story of a unique global collaboration, sustained over more than twenty years through the enthusiasm of contributing research groups, the generosity of numerous funding agencies, and the goodwill of parents and children, schools, hospitals and universities around the world. We take this opportunity to thank all of them most sincerely for their invaluable contributions to ISAAC.

Few scientific studies can claim a place in the Guinness Book of World Records. ISAAC is one of them. Detailed information about the results from ISAAC and access to ISAAC datasets can be found at the ISAAC website.

The ISAAC Story is dedicated to the memory of Stephan Weiland, a founder member of the consortium, who led the development of ISAAC Phase Two until his untimely death in March 2007.



- [Editors](#)
- [Introduction](#)
- [Contributors](#)
- [Tribute to Stephan Weiland](#)



The ISAAC Story



Editors

Introduction

Contributors

Tribute to

Stephan Weiland

Contributors

ISAAC Executive

Name	Years
Innes ASHER	1993-present
Richard BEASLEY	1993-1998 2000-2003
Bengt BJÖRKSTÉN	1997-2007
Luis GARCIA-MARCOS	2007-present
Neil PEARCE	1999-present
David STRACHAN	1993-present
Stephan WEILAND	1997-2007

ISAAC Steering Committee

Name	Years
Nadia AÏT-KHALED	1999-present
Gabriel ANABWANI	1993-1999
Ross ANDERSON	1991-present
Innes ASHER	1991-present
Richard BEASLEY	1992-present
Bengt BJÖRKSTÉN	1993-present
Bert BRUNEKREEF	2005-present
Michael BURR	1991-2002
Julian CRANE	1991-present
Bill COOKSON	2000-2007
Philippa ELLWOOD	2002-present
Carsten FLOHR	2008-present
Sunia FOLIAKI	2001-present
Francesco FORASTIERE	2008-present
Luis GARCIA-MARCOS	2006-present
Ulrich KEIL	1991-present
Chris LAI	1993-present
Javier MALLOL	1993-present
Fernando MARTINEZ	1991-2004
Ed MITCHELL	1991-present
Stephen MONTEFORT	1994-present
Joseph ODHIAMBO	1999-present
Neil PEARCE	1991-present
Colin ROBERTSON	1991-present
Jayant SHAH	1994-2006
Bonnie SIBBALD	1991-1993
Alistair STEWART	1997-present
David STRACHAN	1991-present
Erika VON MUTIUS	1991-present
Stephan WEILAND	1991-2007
Gudrun WEINMAYR	2007-present
Hywel WILLIAMS	1992-present
Gary WONG	2006-present

Regional Coordinators

Professor Nadia Aït-Khaled	Africa
Professor Bengt Björkstén	Northern and Eastern Europe
Dr Sunia Foliaki	Oceania
Prof Dr Ulrich Keil	Western Europe
Dr Christopher Lai	Asia-Pacific
Professor Javier Mallol	Latin America
Professor Stephen Montefort	Eastern Mediterranean
Dr Joseph A Odhiambo	Africa
Dr Jayant Shah	Indian Sub-Continent

The ISAAC Story



National Coordinators

Dra Viviana Aguirre	Chile
Professor Vladimir Ahel	Croatia
Associate Professor Omar Al-Rawas	Sultanate Of Oman
Dr Oscar Aldrey	Venezuela
Professor H Ross Anderson	United Kingdom
Dr Isabella Annesi-Maesano	France
Professor Innes Asher	New Zealand
Dr Carlos E Baena-Cagnani	Argentina
Dr Manuel Baeza-Bacab	Mexico
Dr Etienne Bahati	Republique Democratique du Congo
Prof Dr Karmen Baratawidjaja	Indonesia
Dr Sergio Barba	Ecuador
Dr Sylvie Barny	Nouvelle Caledonie
Professor Zoubida Bouayad	Morocco
Dr Lennart Bråbäck	Sweden
Dr Agustin Bueso-Engelhardt	Honduras
Mme Christine Catteau	Reunion Island
Dr René Chansin	French Polynesia
Professor Denis Charpin	France
Professor Yu-Zhi Chen	China
Dr Pascual Chiarella	Peru
Dr Imanalieva Cholpon	Kyrgyzstan
Professor Felicidad Cua-Lim	Philippines
Dr Gherson Cukier	Panamá
Dr Roro Daniel	Cook Islands
Associate Professor Jessie de Bruyne	Malaysia
Professor Diana Deleanu	Romania
Dr Nuha El Sharif	Palestine
Dr Asma El Sony	Sudan
Dr Toakase Fakakovi	Tonga
Dr Margarita Figueroa Colorado	El Salvador
Dr Francesco Forastiere	Italy
Professor Luis García-Marcos	Spain
Dr Maia Gotua	Georgia
Associate Professor Christina Gratziou	Greece
Dr Jaime A Guggiari-Chase	Paraguay
Dr Kirthi D Gunasekera	Sri Lanka
Associate Professor Gerald Haidinger	Austria
Dra Dolores Holgado	Uruguay
Dr Malcolm E Howitt	Barbados
Dr Jing-Long Huang	Taiwan
Dr Isabelle Koume Hypolite	Gabon
Dr Tekie Iosefa	Tokelau
Prof Dr Ulrich Keil	Germany
Professor Rakhim M Khaitov	Russia
Dr Bernard Ngoran Koffi	Côte D'Ivoire
Professor Christopher Kuaban	Cameroon
Associate Professor Jolanta Kudzyte	Lithuania
Dr Christopher Lai	SAR China
Professor Bee-Wah Lee	Singapore
Professor Ha-Baik Lee	South Korea
Associate Professor Grzegorz Lis	Poland
Dr Naseeruddin Mahmood	Pakistan
Professor Javier Mallol	Chile
Dr Patrick Manning	Republic Of Ireland
Dr Mohammed-Reza Masjedi	Iran

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

Dr Samira Mohammad	Syria
Professor Stephen Montefort	Malta
Dr Lucy Ng'ang'a	Kenya
Dr Lennart Nilsson	Sweden
Professor Sankei Nishima	Japan
Associate Professor Viktor Ognev	Ukraine
Dr Jean Paul Okiate	Republique Democratique du Congo
Mr Roy Otten	Netherlands
Dr Juha Pekkanen	Finland
Dr Rosario Pinto-Vargas	Bolivia
Dr Todor Popov	Bulgaria
Professor Alfred Priftanji	Albania
Dr Mall-Anne Riikjärv	Estonia
Professor Colin F Robertson	Australia
Dr José E Rosado Pinto	Portugal
Dr José Félix Sánchez	Nicaragua
Professor Malcolm R Sears	Canada
Dr Jayant Shah	India
Professor Dirceu Solé	Brasil
Dr Manuel E Soto-Quirós	Costa Rica
Dr Nuualofa Tuuau-Potoi	Samoa
Dra Patricia Varona Peréz	Cuba
Dr Pakit Vichyanond	Thailand
Assoc Prof Emilija Vlaski	Republic of Macedonia
Prof Dr med Stephan Weiland	Germany
Professor Heather J Zar	South Africa
Dr Zorica Zivkovic	Serbia and Montenegro
Dr Györgyi Zsigmond	Hungary

Principal Investigators

Dr Faisal Abu-Ekteish	Phase Three: Amman
Dr Emmanuel OD Addo-Yobo	Phase Two: Kintampo
Dr Omer Adzovic	Phase Three: Podgorica
Dr Pedro Aguilar	Phase Three: South Santiago
Dr Jawad A al-Momen	Phase One: Kuwait, Phase Three: Kuwait
Associate Professor Omar Al-Rawas	Phase Three: Al-Khod
Associate Professor Bazdawi Al-Riyami	Phase One: Al-Khod
Dr Oscar Aldrey	Phase Three: Caracas
Dr Lidia Amarales	Phase One: Punta Arenas, Phase Three: Punta Arenas
Professor H Ross Anderson	Phase One: Anglia and Oxford, North east and Yorkshire, North Thames, North West, Scotland, South and West, South Thames, Trent, Wales, West Midlands, Phase Three: North Thames, South Thames
Dr Isabella Annesi-Maesano	Phase One: West Marne, Phase Two: Créteil, Phase Three: Nouvelle Caledonie, Polynesie Francaise, Reunion Island
Professor Tamara Aripova	Phase One: Samarkand, Tashkent
Dr Gustavo Aristizábal	Phase Three: Bogotá
Dr Lucio Armenio	Phase Three: Bari
Dr Alberto Arnedo-Pena	Phase One: Castellón, Phase Three: Castellón
Professor Innes Asher	Phase One: Auckland, Phase Three: Auckland
Dr Jane B Austin	Phase Three: Scotland
Professor Shally Awasthi	Phase Three: Lucknow
Dr Carlos E Baena-Cagnani	Phase One: Córdoba, Phase Three: Córdoba
Dr Manuel Baeza-Bacab	Phase Three: Mérida
Dr Mao Bao-Shan	Phase One: Shanghai
Prof Dr Karnen Baratawidjaja	Phase One: Bandung
Dr Sergio Barba	Phase Three: Quito
Dra Mercedes Barragán-Meijueiro	Phase Three: Ciudad de México (3)
Dr David Barry	Phase One: Hawkes Bay
Dr José Batlles-Garrido	Phase Two: Almeria, Phase Three: Almeria
Professor Adrian Bauman	Phase One: Sydney 13-14
Dr Luis Alberto Vera Benavides	Phase Three: Calama
Professor Badia Benhabylès	Phase One: West Algiers, Phase Three: Wilaya of Algiers
Professor Abedelkrim Bennis	Phase One: Rabat

The ISAAC Story



Dr Cláudia dos Santos Dutra Bernhardt	Phase Three: Itajaí
Dr Patricia Gomes M Bezerra	Phase One: Recife
Dr A Bezzaoucha	Phase One: Algiers
Associate Professor Sheila Bhave	Phase Three: Rasta Peth
Dr Zulfiqar A Bhutta	Phase One: Karachi
Dr Marco Biocca	Phase One: Emilia-Romagna
Dr Luigi Bisanti	Phase One: Milano, Phase Three: Milano
Professor Alfredo Blanco-Quirós	Phase One: Valladolid, Phase Three: Valladolid
Professor Jurgis Bojarskas	Phase One: Kaunas, Phase Three: Panevezys, Siauliai
Dr Enea Bonci	Phase One: Cosenza, Phase Three: Cosenza
Professor Attilio Boner	Phase One: Verona
Professor Sergio Bonini	Phase One: Ascoli Piceno
Dr Fernando D Borges	Phase One: Funchal
Dr Wellington G Borges	Phase Three: Brasília
Professor Zoubida Bouayad	Phase One: Casablanca, Marrakech, Phase Three: Benslimane, Boulmene, Casablanca, Marrakech
Associate Professor Anna Brêborowicz	Phase One: Poznan, Phase Three: Poznan
Professor Bert Brunekreef	Phase Two: Netherlands (Utrecht)
Dr Lennart Bråbäck	Phase Two: Linköping, Östersund
Dr Agustin Bueso-Engelhardt	Phase Three: San Pedro Sula
Dr Michael Burr	Phase Three: Wales
Dr Rosa M Busquets	Phase One: Barcelona, Phase Three: Barcelona
Dr César Bustos Cajas	Phase Three: Guayaquil
Dr Mario A Calvo	Phase One: Valdivia, Phase Three: Valdivia
Dra Rita Câmara	Phase Three: Funchal
Professor Paulo Augusto M Camargos	Phase Three: Belo Horizonte
Dra Maria do Socorro Cardoso	Phase Three: Manaus Amazonas
Dr Ignacio Carvajal-Urueña	Phase Three: Asturias
Dr Alfonso M Cepeda	Phase Three: Barranquilla
Professor Denis Charpin	Phase One: Marseille
Dr Elisabetta Chellini	Phase One: Firenze, Phase Three: Firenze
Professor Kun-Hua Chen	Phase One: Chongqing
Professor Yu-Zhi Chen	Phase One: Beijing, Phase Two: Beijing, Phase Three: Beijing, Tong Zhou
Ms Lucia Chetoni	Phase One: Empoli
Professor Jugesh Chhatwal	Phase Three: Ludhiana
Dr Pascual Chiarella	Phase One: Lima, Phase Three: Lima
Dr M Lourdes Chiera	Phase Three: Coimbra
Dr Imanalieva Cholpon	Phase Three: Balykchi, Bishkek
Dr Kamlesh Chopra	Phase One: New Delhi (7)
Dr Kok Wai Chum	Phase One: Muar
Dr Giovannino Ciccone	Phase One: Torino, Phase Three: Torino
Professor Luke Clancy	Phase One: Republic of Ireland, Phase Three: Republic of Ireland
Dr Michael Clausen	Phase Two: Reykjavik
Dra Amanda Contreras	Phase Three: Chiloe
Dr Phillip Cooper	Phase Two: Pichincha
Mr Guiseppe Corbo	Phase One: Viterbo
Dra Eliana Cortez	Phase One: South Santiago
Professor Julian Crane	Phase One: Wellington, Phase Two: Hawkes Bay
Prof Dr Carlos D Crisci	Phase Three: Rosario City
Professor Felicidad Cua-Lim	Phase One: Metro Manilla, Phase Three: Metro Manila
Dr Gherson Cukier	Phase One: David-Panamá, Phase Three: David-Panamá
Associate Professor Antônio José Ledo Aves Cunha	Phase Three: Nova Iguaçu
Dr Roro Daniel	Phase Three: Rarotonga
Dr Murilo de Britto	Phase Three: Recife
Associate Professor Jessie de Bruyne	Phase One: Klang Valley, Phase Three: Klang Valley

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story

Associate Professor Leda de Freitas Souza	Phase One: Salvador, Phase Three: Feira de Santana, Salvador, Vitória da Conquista
Dr Blanca E Del-Río-Navarro	Phase Three: Ciudad de México (1)
Professor Diana Deleanu	Phase One: Cluj, Phase Three: Cluj
Dr Valerio Dell'Orco	Phase Three: Colleferro-Tivoli
Dr Nuha El Sharif	Phase Two: Ramallah, Phase Three: Ramallah
Professor Rutger Engels	Phase Three: Netherlands
Dr Fabian O Esamai	Phase One: Eldoret, Phase Three: Eldoret
Professor Alex Ferguson	Phase Three: Vancouver
Dr Margarita Figueroa Colorado	Phase Three: San Salvador
Dr Gilberto B Fischer	Phase Three: Porto Alegre
Dr Sunia Foliaki	Phase Three: Nuku alofa
Dr Francesco Forastiere	Phase One: Roma, Phase Two: Roma, Phase Three: Roma
Dr Tony Foucard	Phase One: Stockholm/Uppsala
Ms Peone Fuimaono V Pisi	Phase Three: Apia
Dr Claudia Galassi	Phase Three: Emilia-Romagna
Professor Amiran Gamkrelidze	Phase One: Tbilisi
Dr Roberto García-Almaráz	Phase Three: Ciudad Victoria
Dr Gloria García-Hernández	Phase One: Madrid, Phase Two: Madrid, Phase Three: Madrid
Professor Luis García-Marcos	Phase One: Cartagena, Phase Two: Cartagena, Phase Three: Cartagena
Dr Gabriele Giannella	Phase Three: Mantova
Professor Philippe Godard	Phase One: Montpellier
Associate Professor Daniel Yam Thiam Goh	Phase Three: Singapore
Dr R. Maximiliano Gómez	Phase Three: Salta
Dr Carlos González Díaz	Phase Three: Bilbao
Dr Sandra Nora González-Díaz	Phase Three: Monterrey
Dr Maia Gotua	Phase Two: Tbilisi, Phase Three: Kutaisi
Ms Rosie Goulding	Phase Three: Jersey
Dr Richard Grainger	Phase One: Jersey
Associate Professor Christina Gratziau	Phase One: Athens, Phase Two: Athens
Dr Jaime A Guggiari-Chase	Phase One: Asunción, Phase Three: Asunción
Professor Francisco Guillén-Grima	Phase One: Pamplona, Phase Three: Pamplona
Dr Kirthi D Gunasekera	Phase Three: Sri Lanka
Dr Mila Hadnadjev	Phase Three: Novi Sad
Associate Professor Gerald Haidinger	Phase One: Kärnten, Urfahr-Umgebung, Phase Three: Kärnten, Urfahr-Umgebung
Dr Neeta Milind Hanumante	Phase One: Pune, Phase Three: Pune
Dr Dolores Holgado	Phase One: Montevideo, Phase Three: Montevideo
Dr Malcolm E Howitt	Phase One: Barbados, Phase Three: Barbados
Professor Kue-Hsiung Hsieh	Phase One: Taipei
Dr Jing-Long Huang	Phase Three: Taipei
Dr Isabelle Ekoume Hypolite	Phase Three: Port-Gentil
Dr Tekie Iosefa	Phase Three: Tokelau
Dr K C Jain	Phase One: Jodhpur, Phase Three: Jodhpur
Dr G Jayaraj	Phase One: Neyveli
Dr David Jeffs	Phase One: Guernsey
Professeur Mohamed Jerray	Phase One: Sousse, Phase Three: Sousse
Dr Mohan Keshav Joshi	Phase One: Bombay (16), Phase Three: Mumbai (16)
Dr Merja Kajosaari	Phase One: Helsinki
Dr Chun-Chieh Kao	Phase Three: Taoyuan
Dr Pradeep Kumar Kar	Phase One: Orissa
Prof Dr Cissy B Kartasasmita	Phase Three: Bandung
Prof Dr Jean-Marie Kayembe	Phase Three: Kinshasa
Prof Dr Ulrich Keil	Phase One: Münster, Phase Three: Münster
Dr Declan Kennedy	Phase One: Adelaide
Professor Rakhim M Khaitov	Phase One: Moscow
Professeur Faouzia Khaldi	Phase Three: Grand Tunis
Dr Vasant A Khatav	Phase One: Borivali, Phase Three: Borivali
Dr Nino Khetsuriani	Phase One: Kutaisi
Professor N-I Max Kjellman	Phase One: Linköping
Dr Bernard Ngoran Koffi	Phase Three: Urban Cote d Ivoire
Dr Turku Antti Koivikko	Phase One: Turku and Pori County

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story



Prof Dr Elena G Kondiourina	Phase One: Novosibirsk, Phase Three: Novosibirsk
Dr Aree Kongpanichkul	Phase Three: Nakorn Pathom
Professor Putu Konthen	Phase Three: Bali
Dr Christine Kopferschmitt-Kubler	Phase One: Strasbourg
Professor Axel Kramer	Phase One: Greifswald
Professor Christopher Kuaban	Phase Three: Yaounde
Associate Professor Jolanta Kudzyte	Phase Three: Kaunas
Professor Lata Kumar	Phase One: Chandigarh
Assistant Professor Osamu Kunii	Phase Three: Tibet
Dr Stefania La Grutta	Phase Three: Palermo
Dr Kristina Lah Tomulic	Phase Three: Rijeka
Dr Christopher Lai	Phase One: Hong Kong 13-14, Phase Two: Hong Kong
Professor Louis Landau	Phase One: Perth
Dra María Cristina Lapides	Phase Three: Paysandú
Professor Yu Lung Lau	Phase One: Hong Kong 6-7, Phase Three: Hong Kong 6-7
Professor Bee-Wah Lee	Phase One: Singapore
Dr Sang-Il Lee	Phase One: Provincial Korea, Seoul
Professor Ha-Baik Lee	Phase Three: Provincial Korea, Seoul
Dr Marcis Leja	Phase One: Riga, Rural Latvia
Professor W Leopold	Phase Two: Dresden
Dr Qiao Li Pan	Phase Three: Wulumuqi(9)
Dr Francisco J Linares-Zapién	Phase Three: Toluca
Associate Professor Grzegorz Lis	Phase One: Krakow (1993), Kraków (1995), Phase Three: Kraków (1995)
Dr José M Lopes dos Santos	Phase One: Porto, Phase Three: Porto
Dr Angel López-Silvarrey Varela	Phase Three: A Coruña
Professor Joseph M'Boussa	Phase Three: Brazzaville
Dr Richard MacKay	Phase One: Nelson, Phase Three: Nelson
Ms Moka Magatogia	Phase Three: Niue Island
Dr Ramesh M. Maheshwari	Phase One: Akola
Dr Naseeruddin Mahmood	Phase Three: Karachi
Dr Sumant Narayan Mantri	Phase Three: Mumbai (29)
Dr Mohammed-Reza Masjedi	Phase One: Rasht, Tehran, Phase Three: Birjand, Rasht, Tehran, Zanjan
Associate Professor Kibrebeal Melaku	Phase One: Addis Ababa, Phase Three: Addis Ababa
Dr Juan Valente Merida-Palacio	Phase Three: Mexicali Valley
Professor Youssef Mohammad	Phase Three: Lattakia
Dr Samira Mohammad	Phase Three: Tartous
Professor Stephen Montefort	Phase One: Malta, Phase Three: Malta
Dr Michelle A Monteil	Phase Three: St Augustine, Tobago
Professor Maria M. Morales Suárez-Varela	Phase One: Valencia, Phase Two: Valencia, Phase Three: Valencia
Mr Shaban Mortaja	Phase Three: North Gaza
Dra Jackeline Machado Motta Franco	Phase Three: Aracaju
Dr Chris Moyes	Phase One: Bay of Plenty, Phase Three: Bay of Plenty
Prof Omer Abdel Aziz Musa	Phase Three: Khartoum
Dr Maggie Louis Naguib	Phase Three: Cairo
Dr Hugo Nelson	Phase One: Cape Town
Dr Rawee Nettagul	Phase Three: Chiangrai
Dr Lucy Ng'ang'a	Phase Three: Nairobi
Professor Sankei Nishima	Phase One: Fukuoka
Dr Zoltán Novák	Phase Three: Szeged
Dr Carlos Nunes	Phase One: Portimao, Phase Three: Portimao
Dr Wenche Nystad	Phase Two: Tromsø
Dr Hiroshi Odajima	Phase Three: Fukuoka
Dr Joseph A Odhiambo	Phase One: Nairobi
Associate Professor Viktor Ognev	Phase One: Kharkiv, Phase Three: Kharkiv, Rural Kharkiv
Professor Babatunde O Onadeko	Phase One: Ibadan, Phase Three: Ibadan
Dr Gustavo A Ordoñez	Phase Three: Cali
Dr Uday Anath Pai	Phase One: Bombay (17)

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story



Editors
Introduction
Contributors
Tribute to
Stephan Weiland

Dr Eva Panic	Phase Three: Sombor
Professor Francisco José Passos	Phase Three: Maceió
Dr Antonio Carlos Pastorino	Phase Three: São Paulo West
Associate Professor Philip Pattemore	Phase One: Christchurch, Phase Three: Christchurch
Professor Neil Pearce	Phase Three: Wellington
Dr Jennifer Peat	Phase One: Sydney 6-7
Dr Juha Pekkanen	Phase One: Kuopio County, Phase Three: Kuopio County
Professor Eduardo G Pérez-Yarza	Phase Three: San Sebastián
Professor Victoria Persky	Phase One: Chicago (3), Chicago (4)
Dr M G Petronio	Phase Three: Empoli
Dr Asha Vijaykumar Pherwani	Phase Three: Mumbai (18)
Dr Silvano Piffer	Phase One: Trento, Phase Three: Trento
Dr Rosario Pinto-Vargas	Phase Three: Santa Cruz
Dr Todor Popov	Phase Three: Sofia
Dr Arnaldo C Porto Neto	Phase Three: Passo Fundo
Dr Peter Powell	Phase One: Isle of Man
Dr Thanong Prasarnphanich	Phase Three: Chantaburi
Professor Alfred Priftanji	Phase One: Tiranë, Phase Two: Tiranë, Phase Three: Tiranë
Professor Ban Seng Quah	Phase One: Kota Bharu, Phase Three: Kota Bharu
Dr Andrés Rabadán-Asensio	Phase One: Cádiz
Dr Kalyani Raghavan	Phase One: Bombay (18)
Dr Sarela Rajajee	Phase One: Madras (2)
Dr Fuad M Ramadan	Phase One: Beirut
Dra Nelly Ramírez-Chanona	Phase Three: Ciudad de México (4)
Professor Gregory J Redding	Phase One: Seattle, Phase Three: Seattle
Professor Sylvan Rego	Phase Three: Bangalore
Professor Donna Rennie	Phase Three: Saskatoon
Ms Elisabetta Renzoni	Phase One: Siena
Univ.Prof.Dr. Josef Riedler	Phase One: Salzburg
Dr Mall-Anne Riikjäär	Phase One: Narva, Tallinn, Phase Two: Tallinn, Phase Three: Tallinn
Professor Colin F Robertson	Phase One: Melbourne, Phase Three: Melbourne
Dr Sergio Romero-Tapia	Phase Three: Villahermosa
Professor Isabelle Romieu	Phase One: Cuernavaca, Phase Three: Cuernavaca
Mr Roberto Ronchetti	Phase One: Frosinone
Dr José E Rosado Pinto	Phase One: Lisbon, Phase Three: Lisbon
Professor Nelson Rosário	Phase One: Curitiba, Phase Three: Curitiba
Dr Alfonso Delgado Rubio	Phase One: Bilbao
Mr Franca Rusconi	Phase One: Cremona
Dr Rosalina Sa'aga-Banuve	Phase Three: Suva
Professor Mohammed Sabir	Phase Three: Bikaner
Dr Natalio Salmun	Phase One: Buenos Aires
Dr Natalio Salmun	Phase One: Rosario
Dr Sundeep Salvi	Phase Three: Nagpur, Pimpri
Dr Ignacio Sanchez	Phase One: Central Santiago
Dr José Félix Sánchez	Phase Three: Managua
Dr Yildiz Saraçlar	Phase Two: Ankara
Professor Malcolm R Sears	Phase One: Hamilton
Dr Piersante Sestini	Phase Three: Siena
Dr Gururaj Setty	Phase Three: Chennai (3)
Professor Berhane Seyoum	Phase One: Jima
Dr Jayant Shah	Phase Two: Mumbai (16)
Dr Mohammad H Shamssain	Phase One: Sunderland, Phase Three: Sunderland
Professor S K Sharma	Phase Three: New Delhi (7)
Assistant Professor Almerinda Silva	Phase Three: Caruaru
Dr Meenu Singh	Phase Three: Chandigarh
Professor Virendra Singh	Phase Three: Jaipur
Professor Makino Sohei	Phase Three: Tochigi
Dr Leena Soininen	Phase One: Lapland Area
Professor Dirceu Solé	Phase One: São Paulo, Phase Three: Rural Santa Maria, Santa Maria, São Paulo
Dr N Somu	Phase One: Madras (3)
Dr Manuel E Soto-Quirós	Phase One: Costa Rica, Phase Three: Costa Rica
Professeur Oumou Younoussa Sow	Phase Three: Conakry
Dr Peter Strandring	Phase Three: Guernsey
Professor Renato Stein	Phase One: Porto Alegre, Phase Two: Uruguaiana

The ISAAC Story



Dr Andreea Steriu	Phase Three: Isle of Man
Professor David Strachan	Phase One: Surrey/Sussex, Phase Two: West Sussex, Phase Three: Surrey/Sussex
Dr T U Sukumaran	Phase One: Kottayam, Phase Three: Kottayam
Professor Shairbek Sulaimanov	Phase Three: Jalalabat
Dr Winarto Suprihati	Phase Three: Semarang
Dr P S Suresh Babu	Phase Three: Davangere
Assistant Professor Vija Svabe	Phase Two: Riga, Phase Three: Riga
Dr Khaldoun Tabbah	Phase Three: Aleppo
Dr Brett Taylor	Phase One: Saskatoon
Professor André Taytard	Phase One: Pessac
Associate Professor Jamaree Teeratakulpisarn	Phase Three: Khon Kaen
Dr Keng Hwang Teh	Phase One: Alor Setar, Phase Three: Alor Setar
Professor Osseni Tidjani	Phase Three: Lome
Associate Professor Muthita Trakultivakorn	Phase One: Chiang Mai, Phase Three: Chiang Mai
Associate Professor John Tsanakas	Phase Two: Thessaloniki, Phase Three: Thessaloniki
Dr Baïch Vaën Cam	Phase Three: Ho Chi Minh City
Dra Patricia Varona Pérez	Phase Three: La Habana
Professor Paul Vermeire	Phase One: Antwerp
Dr Pakit Vichyanond	Phase One: Bangkok, Phase Three: Bangkok
Assoc Prof Emilija Vlaski	Phase Three: Skopje
Dr Hartmut Vogt	Phase Three: Linköping
Professor Erika von Mutius	Phase Two: Munich
Professor Kuku Voyi	Phase Three: Polokwane
Associate Professor Neusa Wandalsen	Phase Three: Santo Andre
Professor Joost Weyler	Phase Three: Antwerp
Dr Hugh H Windom	Phase Three: Sarasota
Professor Gary Wong	Phase Three: Hong Kong 13-14
Professor Man-Lin Xiao	Phase One: Wulumuqi
Dr Karin Yeatts	Phase Three: Chapel Hill
Dr Lim Wee Yeong	Phase One: Ipoh
Dr Mohammad Osman Yusuf	Phase Three: Islamabad
Professor Gustavo Enrique Zabert	Phase Three: Neuquén
Professor Heather J Zar	Phase Three: Cape Town
Professor Nan-Shan Zhong	Phase One: Guangzhou, Phase Two: Guangzhou, Phase Three: Guangzhou
Asst Professor Snezana Zivanovic	Phase Three: Nis
Dr Zorica Zivkovic	Phase Three: Belgrade
Dr Györgyi Zsigmond	Phase Three: Svábhegy

ISAAC Collaborators

Dr Francée Aarts	Phase Two: Netherlands (Utrecht)
Dr. Mazidah Abdul Rasid	Phase Three: Kota Bharu
Moldogazieva Aigul	Phase Three: Balykchi, Bishkek
Ilijevic Aleksandra	Phase Three: Novi Sad
Dr Jose Pepito M Amores	Phase One: Metro Manilla
V.N. Androsov	Phase One: Moscow
Dr Triine Annus	Phase One: Narva, Tallinn, Phase Three: Tallinn
Pamela Arellano	Phase One: Valdivia, Phase Three: Valdivia
Dr Jane B Austin	Phase One: Scotland
Linda Bagrade	Phase Two: Riga
Dra Carmen Ruiz Barbosa	Phase One: Cádiz
Dr Albino Barraza	Phase Three: Cuernavaca
Dr David Bates	Phase One: Adelaide
Dr Károly Berényi	Phase Three: Szeged
Professor Annibale Biggeri	Phase One: Firenze
Jill Birbeck	Phase One: Jersey, Phase Three: Jersey
K.R. Bokelovadze	Phase One: Moscow
Dr Sofija Brankovic	Phase Three: Nis
Inês C. Camelo-Nunes	Phase One: São Paulo, Phase Three: Rural Santa Maria, Santa Maria, São Paulo

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

Guna Casno	Phase Two: Riga
Karen Chacon	Phase Three: Rural Santa Maria, Santa Maria, São Paulo
Amani Chehade	Phase One: Beirut
Soo Cheng	Phase Three: Wellington
Dr Paraschiva Chereches Panta	Phase One: Cluj, Phase Three: Cluj
Seitalieva Chiinara	Phase Three: Balykchi, Bishkek
Mr Antonio Chistofolini	Phase Three: Trento
Diana Church	Phase Three: Cluj
Mr Tadd Clayton	Phase One: Auckland, Phase Three: Auckland
Dr Marija Conic	Phase Three: Nis
Dr Alfredo Arias Cruz	Phase Three: Monterrey
Dr Wendy D'Souza	Phase One: Wellington
I.V. Danilycheva	Phase One: Moscow
Dr Allan Darwis	Phase Three: Semarang
Rocío De Janón	Phase Three: Guayaquil
Dr Maria Paola Di Pietro	Phase Three: Empoli
Carlos Díaz Vázquez	Phase Three: Asturias
Carmen Díez Fernández	Phase Three: Asturias
Begoña Domínguez Aurrecoechea	Phase Three: Asturias
Dr Heinrich Duhme	Phase Three: Münster
Vlaovic-Ugljevicanin Dušanka	Phase Three: Novi Sad
Professor Rodney Ehrlich	Phase One: Cape Town, Phase Three: Cape Town
Dr Lis Ellison-Loschmann	Phase Three: Wellington
Boronbaeva Elnura	Phase Three: Balykchi, Bishkek
Dr Ricardo Ensínck	Phase One: Rosario, Phase Three: Rosario City
S.M. Erokhina	Phase One: Moscow
Mr Mose Faatamala	Phase Three: Apia
Dr Adegoke Falade	Phase Three: Ibadan
Dr Emilia Faria	Phase Three: Coimbra
Dr Manuel F Ferreria	Phase Three: Metro Manila
Mauricio Flores	Phase Three: San Salvador
Dr Rodney Ford	Phase One: Christchurch
Martha Garcia	Phase Three: Managua
Agueda García Merino	Phase Three: Asturias
Professor Cristina Gonçalves Alvim	Phase Three: Belo Horizonte
Ms Claudia Elizabeth González-Garza	Phase Three: Monterrey
Dr Bernard Granger	Phase Three: Nouvelle Caledonie, Polynesie Francaise, Reunion Island
Maria Ines Guarda	Phase One: Valdivia, Phase Three: Valdivia
Dr Najimidinova Gulmira	Phase Three: Balykchi, Bishkek
Darka Hadnadjev	Phase Three: Novi Sad
Terreza Hajaar	Phase One: Beirut
Pip Hall	Phase Three: Wellington
Ben Harding	Phase Three: Wellington
Dr. Mohd Hashim Mohd Hassan	Phase One: Kota Bharu
Kicki Helander	Phase Three: Linköping
Prof Dr med Wolfgang Hoffmann	Phase One: Greifswald
Dr Soo-Jong Hong	Phase Three: Provincial Korea, Seoul
William Hoyos	Phase Three: San Salvador
Ismael Huerta González	Phase Three: Asturias
Nyk Huntington	Phase Three: Wellington
Yolanda Iglesias	Phase Three: A Coruña
Dr K Janardhan	Phase One: Neyveli
Asankojoeva Janyl	Phase Three: Balykchi, Bishkek
Dr M P Jeyapaul	Phase Three: Chennai (3)
Professor Maria Jussara Fernands Fontes	Phase Three: Belo Horizonte
Ms Jo Kappers	Phase One: Melbourne
Dr Balvinder Kaur	Phase One: Anglia and Oxford, North east and Yorkshire, North Thames, North West, Scotland, South and West, South Thames, Trent, Wales, West Midlands, Phase Two: West Sussex, Phase Three: North Thames, South Thames
Dr Wee Teik Keng	Phase One: Alor Setar
Dr Raju Khubchandani	Phase Two: Mumbai (16)
Professor Ali Kocabas	Phase Two: Ankara

The ISAAC Story



Mr Matti Korppi	Phase Three: Kuopio County
Dr Spomenka Kovacevic	Phase Three: Nis
Dr Marianne Kovács	Phase Three: Szeged
Dr Ildikó Kovács	Phase Three: Szeged
Professor Fábio Kuschnir	Phase Three: Nova Iguaçú
Dr Semanur Kuyucu	Phase Two: Ankara
Dr Adriana Kyling	Phase One: Valdivia, Phase Three: Valdivia
Dr Camara Lansana Mady	Phase Three: Conakry
Dr Josh Lawson	Phase Three: Saskatoon
Carmen Luna-Paredes	Phase Three: Madrid
L.V. Luss	Phase One: Moscow
Clare Macdonald	Phase Three: Wellington
Athanasia Magafa	Phase One: Athens
Mar Marcilla Escotet	Phase Three: Asturias
Francisco Marin	Phase One: Valdivia, Phase Three: Valdivia
Ms Chantelle Maritz	Phase Three: Polokwane
Antonio Martínez	Phase Three: Madrid
Ms Mariella Martini	Phase One: Emilia-Romagna
Dr Rajiv S Mathur	Phase Two: Mumbai (16)
Associate Professor Wasim Maziak	Phase Three: Aleppo
María Jesús Mella	Phase Three: A Coruña
Aggeliki Michael	Phase One: Athens
Dr Radmila Mileusnic –Milenovic	Phase Three: Nis
Bratic Mirjana	Phase Three: Novi Sad
Dr Valdone Miseviciene	Phase Three: Kaunas
Ms Vivienne Monk	Phase Three: North Thames, South Thames
Vanesa Moure	Phase Three: A Coruña
Dr Stan Music	Phase Three: Chapel Hill
Dr Tihomir B Mustakov	Phase Three: Sofia
Professor Mircea Nanulescu	Phase One: Cluj, Phase Three: Cluj
Dr Azhar Napis	Phase Three: Alor Setar
Dr. Ariffin Nasir	Phase Three: Kota Bharu
Professor Charles Naspitz	Phase Three: Rural Santa Maria, Santa Maria, São Paulo
Dr Snezana Nikolic	Phase Three: Nis
Inga Novikova	Phase Two: Riga
Djanuzakova Nurgul	Phase Three: Balykchi, Bishkek
Maria Olvido Díez Fernández	Phase Three: Asturias
Dr Rudy Pagcatipunan	Phase One: Metro Manilla, Phase Three: Metro Manila
Dr Lyle J Palmer	Phase One: Perth
Dr Athina Papadopoulou	Phase One: Athens
Kol. (B) Dr. Wan Pauzi Wan Ibrahim	Phase Three: Kota Bharu
Rosalía Pérez	Phase Three: A Coruña
Dr Ljiljana Perovic	Phase Three: Nis
Dr Herbert Peters	Phase Three: Apia
Dr Riccardo Pistelli	Phase Two: Roma
Dr Jan Poloniecki	Phase One: Anglia and Oxford, North east and Yorkshire, North Thames, North West, South and West, South Thames, Trent, Wales, West Midlands
Dr Kostas Priftis	Phase One: Athens
Professor Elisabeth Quoix	Phase One: Strasbourg
Dr Suzana Radulovic	Phase Three: Podgorica
Dr Chantal Raheison	Phase One: Pessac
Dr Mile Z Randjelovic	Phase Three: Nis
Dr. Abdul Razif Abdul Razak	Phase One: Kota Bharu
Dr Sami Remes	Phase Three: Kuopio County
Dr Vanessa Reveco	Phase Three: Punta Arenas
Mr Vic Rhodes	Phase Three: Chapel Hill
Professor Cláudia Ribeiro de Andrade	Phase Three: Belo Horizonte
Dr Thiago Moraes Rizzato	Phase Three: Rural Santa Maria, Santa Maria, São Paulo

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

The ISAAC Story

Editors

Introduction

Contributors

Tribute to

Stephan Weiland

Dr Camilo Roa

Mireya Rodas Suárez

Pablo Salazar

Ing-Marie Sandberg

Dr Anna Sandin

Alba Sandoval

Dr Maria Ines Sanhueza

Dina Sebre

Dr A Senthilselvan

Dr Carl Shy

Alfredo Sierra Rabascal

Dr Maja Slavkovic-Jovanovic

Ms Julie A Slezak

E.B. Smorodina

Dr Ljiljana Stojanovic-Milojkovic

Dr Alexis Strickler

Dr Kumiya Sugiyama

Dr Madelaine Sumpaico

Dr Teariki Tamarua

Dr Chun Khian Tan

Ms Amohaere Tangitu

Dr Stefania Teche

Dr Nurlan Toroev

Dr Jose Ulloa Correa

Dr Oriol Vall

Ms Rita Vasconcelos

Dr Luis Vega-Briceño

Dr Giovanni Viegi

Dr D Vijaya Sekaran

Dr Christian Vogelberg MD

Dr Hongyu Wang

Dr Lepani Waqatakirewa

Dr Henriette Wembanyama

Dr Kristin Wickens

Dr Teik Guan Yew

Dr Olga Zaikina

Phase One: Metro Manila, Phase Three: Metro Manila

Phase Three: Guayaquil

Phase Three: San Salvador

Phase Three: Linköping

Phase Two: Linköping, Östersund

Phase Three: Managua

Phase One: Valdivia, Phase Three: Valdivia

Phase Two: Riga, Phase Three: Riga

Phase One: Saskatoon, Phase Three: Saskatoon

Phase Three: Chapel Hill

Phase Three: Guayaquil

Phase Three: Nis

Phase One: Chicago (3), Chicago (4)

Phase One: Moscow

Phase Three: Nis

Phase One: Valdivia, Phase Three: Valdivia

Phase Three: Tochigi

Phase Three: Metro Manila

Phase Three: Rarotonga

Phase Three: Alor Setar

Phase Three: Bay of Plenty

Phase Three: Rural Santa Maria, Santa Maria, São Paulo

Phase Three: Jalalabat

Phase Three: Guayaquil

Phase One: Barcelona

Phase Three: Lisbon

Phase Three: Lima

Phase One: Roma, Phase Three: Roma

Phase Three: Chennai (3)

Phase Two: Dresden

Phase One: Guangzhou, Phase Two: Guangzhou, Phase Three: Guangzhou

Phase Three: Suva

Phase Three: Kinshasa

Phase Two: Hawkes Bay

Phase One: Alor Setar

Phase One: Moscow

Other Contributors

Mr Gurmeet Singh Bindra

Dr Mary Briscoe

Professor Joan-Pierre Daures

Mr Turid Lingaas Holmen

Dr Yung-Ling Lee

Dr Phil Lowenthal

Dr Miriam Moffat

Dr Mosanda Mvula

Dr Colleen Petterson

Dr P Rudolph

Professor Ruslan M Ruzibakiev

Dr Omaima Saad

Dr Mikhail Valivach

Dr Marjan Wieringa

The ISAAC Story



In Memoriam of Professor Dr Med Stephan Weiland

Professor Dr Med Stephan KM Weiland, 25 December 1958 to 19 March 2007. Professor of Epidemiology, Head of the Institute of Epidemiology, University of Ulm, Coordinator of Phase Two of the International Study of Asthma and Allergies in Childhood (ISAAC) and Executive member of the ISAAC Steering Committee.

Stephan, our much loved friend and colleague, died suddenly and unexpectedly on the 19th March 2007. Stephan was one of the founding members of ISAAC and made an enormous contribution to the scientific development of the study through his long service on the ISAAC Executive and as Phase Two Coordinator. Indeed, without Stephan's leadership, stamina and diplomatic skills, there would probably have been no ISAAC Phase Two. Above all, he cared about people and dedicated his life to health

prevention and health promotion, especially asthma and allergies in children.

Stephan was born and grew up in North-West Germany. He went to medical school in Cologne (1978-1985) and obtained his MD degree in 1987. During this time he became interested in the prevention of disease at a population level. This took him to McGill University in Montreal where he graduated in 1989 with a Masters degree in Epidemiology. He then joined the University of Bochum as assistant professor where he developed an interest in environmental and occupational epidemiology. He was a key individual in the archetypal studies that uncovered unexpected differences in the prevalence of asthma between Western Germany and the recently liberated and heavily polluted East. He moved with Professor Ulrich Keil's department to Münster in 1993, and four years later was promoted to Associate Professor. In 2002, Stephan moved to Ulm, in southern Germany, to take up the Chair of Epidemiology and set up a new Institute of Epidemiology. This took him closer to the mountains which he had loved since he was a young boy. He was an active hiker, climber and skier and enjoyed these outdoor activities whenever he was able to escape from his heavy workload and responsibilities.

Stephan was an outstanding unit director, an internationally respected scientist and an integral member of the ISAAC Steering Committee. Stephan promoted the idea that the ISAAC partnership should be used to investigate specific factors predisposing to asthma, and led the formation of ISAAC Phase Two with that aim. His coordination of 33 ISAAC Phase Two centres in 22 countries and his leadership of a successful application to European Union Fifth Framework Programme led to the establishment of the ISAAC Phase Two Data Centre in Ulm under his direction. Shortly before he died, Stephan received the good news that the first of a series of papers from Phase Two had been accepted for publication, showing how the relationship between atopy and asthma differs between centres in affluent and less affluent countries. A number of papers have followed, due to the research momentum he established in Ulm.

Stephan's welcoming smile, warm compassion and lively sense of humour will be greatly missed, but always remembered – he will be forever part of ISAAC. To us we have lost a great friend and collaborator. To Epidemiology, we have lost a great scientist. Our hearts go out to his family.

The ISAAC Steering Committee

[Editors](#)

[Introduction](#)

[Contributors](#)

[Tribute to](#)

[Stephan Weiland](#)