

# ELARD SIMON KOCH CABEZAS

## Education (academic degrees)

<i>University of Chile, Faculty of Medicine</i> PhD, <u>Biomedical Sciences</u>	<i>2006 – 2012</i>
<i>University of Chile, Faculty of Medicine</i> Master of Public Health, Clinical Epidemiology	<i>2004 - 2008</i>
<i>University of Chile, Faculty of Medicine</i> BSc, Licentiate and Professional degree	<i>1991 – 1997</i>

## Academic Positions

### *A. Main Teaching Positions*

Assistant Professor Faculty of Medicine, University of Chile Santiago, Chile	<i>1996 – 2012</i>
Director of Research Department of Family Medicine University of Chile	<i>2008 – 2012</i>

### *B. Other Research Positions*

Associate Researcher Faculty of Medicine, Universidad Católica de la Santísima Concepción Concepción, Chile	<i>2012 – 2013</i>
Postdoctoral Fellow Women's Research Program School of Medicine UNC, Chapel Hill, USA Dr John Thorp MD, PhD, Ob/Gyn	<i>2012 – present</i>

Doctoral Fellow in Cardiovascular Epidemiology

2007 - 2011

Fundacion Araucaria

Dr Tomas Romero MD

School of Medicine

University of San Diego, CA, USA

## Scholarships

Institution: VID, Universidad de Chile

Activity: Research

Description: Travel grant

Aim: World Congress of Cardiology 2010, Beijing, China

Date: 16 al 19, Jun 2010

Institution: VID, Universidad de Chile

Activity: Research

Description: Travel grant

Aim: European Society of Cardiology Congress 2009, Barcelona, Spain

Date: Aug 29 to Sep 2, 2009

Institution: VID, Universidad de Chile

Activity: Research

Description: Travel grant

Aim: 136th APHA Annual Meeting & Exposition, San Diego, USA

Date: 25 al 29 de Oct 2008

Institution: CONICYT

Activity: Research

Description: Travel grant

Objective: ESC Congress 2007, Vienna, Austria.

Date: Oct 2007

Institution: Universidad de Chile

Description: Doctoral scholarship MECESUP-UCH0219

Activity: Postgraduate Studies

Aim: PhD, Biomedical Sciences

Date: March 2006 – Feb 2010

## **Research Awards, Honors and Distinctions**

### **Chilean Foundation of Cardiology Award 2010**

Best Research in Prevention of Cardiovascular Diseases

XLVII Chilean Congress of Cardiology. December 2010.

US\$ 1,000.

### **Academic Research Excellence Medal 2010**

Faculty of Medicine, University of Chile, May 2010.

### **Academic Research Excellence Medal 2009**

Faculty of Medicine, University of Chile, April 2009.

### **Henri Nestle Award 2008**

First place, Original Research Article; **Koch E**, et al. J Epidemiol Community Health 2008;62(5): 461-470. US\$ 4,000.

### **Academic Research Excellence Medal 2008**

Faculty of Medicine, University of Chile, April 2009.

### **Chilean Society of Cardiology Award 2008**

Best Original Research Article published in Revista Chilena de Cardiología, Dec. 2008.

**Koch Et al.** Rev Chil Cardiol 2008; 27:11-21. US\$ 1.000.

### **Chilean Society of Cardiology Award 2006**

Best Original Research Article published in Revista Chilena de Cardiología, Dec. 2006.

**Koch Et al.** Rev Chil Cardiol 2006; 25:173-84. US\$ 1.000.

**Fundación Araucaria Award, 2006**

Best Scientific Research in Coronary Disease

Fundación Araucaria, San Diego, CA, EUA.

US\$2,000.

**Merck Sharp & Dohme Award, Cardiovascular Research 2006**

US\$ 2,000.

**Medical Society of Chile, “Dr Ramón Corbalán Melgarejo Award”**

Best Original Research Article published in Revista Médica de Chile 2005.

Koch Et al. Rev Med Chil 2005; 133(9): 1002-12.

**Chilean Foundation of Cardiology Award 2005**

Best Research in Prevention of Cardiovascular Diseases

XLII Chilean Congress of Cardiology. December 2005.

US\$ 1,000.

**Chilean Foundation of Cardiology Award 2004**

Best Research in Prevention of Cardiovascular Diseases

XLI Chilean Congress of Cardiology. Dec. 2004.

US\$ 1,000.

**Fundacion Araucaria Award 1999**

Best Scientific Research in Coronary Disease

Fundación Araucaria, San Diego, CA, EUA.

US\$3,500.

## Research Grants

**Research proposal:** "POSTERGACIÓN DE LA MATERNIDAD DE LA MUJER CHILENA Y SU IMPACTO SOBRE EL PERFIL DE CAUSAS DE MORTALIDAD MATERNA: ESTUDIO DE SERIES DE TIEMPO PARALELAS ENTRE 1960 Y 2010".

**Participation:** Researcher (principal)

**Funding sources:** CONICYT, FONDEF (FONIS) SA13I20430

**Amount:** US\$ 40,000

**Starting date:** 2015

**Due date:** Ene 2017

**Research proposal:** "BIOMARKERS FOR THE PRESENCE OF A HUMAN EMBRYO DURING THE FIRST DAYS AFTER CONCEPTION IN UTERINE-CERVICAL MUCUS SAMPLES".

**Participation:** Researcher (principal)

**Funding sources:** Fundacion de Investigación San Ramon (FISAR) and Patrick Slim funds

**Amount:** US\$ 1,700,000.00

**Starting date:** Nov 2013

**Due date:** Ene 2016

**Research proposal:** "FEMALE SUICIDE RATE AND ABORTION LEGISLATION: A NATURAL EXPERIMENT IN SPAIN BETWEEN 1960 AND 2009".

**Participation:** Researcher (principal)

**Funding sources:** FISAR Grant MEL304072012

**Amount:** US\$ 49,500.00

**Starting date:** Jan 2013

**Due date:** Jan 2017

**Research proposal:** "INDUCED ABORTIONS IN COLOMBIA: REVIEW OF RECENT ESTIMATES".

**Participation:** Researcher (principal)

**Funding sources:** ALAFA

**Amount:** US\$ 5,000.00

**Starting date:** Nov 2011

**Due date:** Jan 2012 Research

**Research proposal:** “SAN FRANCISCO PROJECT: 12 YEAR FOLLOW-UP STUDY OF CORONARY HEART DISEASE EVENTS”.

**Participation:** Researcher (principal)

**Funding sources:** Fundacion Araucaria, San Diego, CA. Grant FA01052011.

**Amount:** US\$ 10,000.00

**Starting date:** Aug 2011

**Due date:** Dec 2012

**Research Research proposal:** “HYPERTENSION COHORT: BASELINE OF CARDIOVASCULAR MORBIDITY AND MORTALITY PREDICTIVE FACTORS”. **Participation:** Researcher (principal) **Funding sources:** Fundación Araucaria, San Diego, CA. Grant FA02052011.

**Amount:** US\$ 8,000.00

**Starting Date:** Aug 2011

**Due Date:** Dec 2012

**Research Research proposal:** “WHICH ARE THE MAIN FACTORS RELATED TO MATERNAL AND ABORTION MORTALITY REDUCTION IN CHILE? TIME SERIES ANALYSES FROM 1957 TO 2007”.

**Participation:** Researcher (principal)

**Funding sources:** UNC Research Foundation, Chapel Hill, USA & ISFEM-0910. Santiago, Chile.

**Amount:** US\$ 117,312.00

**Starting date:** Oct 2010

**Due date:** April 2012

**Research Research proposal:** MATERNAL MORTALITY IN CHILE: TIME SERIES 1960 – 2007.

**Participation:** Researcher (principal)

**Funding sources:** Grant ISFEM-1109, Fundación de Investigación, Formación y Estudios de la Mujer (ISFEM), Santiago, Chile.

**Amount:** CLP\$ 10.000.000 (US\$ 19,230.00)

**Starting date:** Nov 2009

**Due date:** Jan 2010 (Completed)

**Research proposal:** "STUDY OF CARDIOVASCULAR OUTCOMES, GEOGRAPHICAL LOCATION OF THE POPULATION AND EVALUATION OF NEW BEHAVIORAL AND PSYCHOSOCIAL RISK FACTORS (PSF-II QUESTIONNAIRES) IN COHORT OF SAN FRANCISCO DE MOSTAZAL".

**Participation:** Researcher (principal)

**Funding sources:** Fundación Araucaria, Grant FA032008, San Diego, CA.

**Amount:** US\$19,822.22

**Starting date:** Oct 2010

**Due date:** April 2010 (Completed)

**Research proposal:** "SAN FRANCISCO PROJECT. FOLLOW-UP OF ALL-CAUSE MORTALITY AND CARDIOVASCULAR OUTCOMES"

**Participation:** Researcher (principal)

**Funding sources:** Fundación Araucaria, Grant FA052005 y FA122006 San Diego, CA. EUA; Grant complementario Fundación de Cardiología de Chile 2005.

**Amount:** US\$ 18,000.00

**Starting date:** May 2005

**Due date:** May 2007 (Completed)

**Research proposal:** SAN FRANCISCO PROJECT: BASELINE OF A COHORT OF CARDIOVASCULAR RISK FACTORS

**Participation:** Researcher (principal)

**Funding sources:** KELLOGG, W.K. FOUNDATION, UNI-KELLOGG Chile.

**Amount:** US\$ 5,000

**Starting date:** 1997

**Due date:** 1999 (Completed)

## **Peer-Reviewed Publications**

### **A. Original Research Articles (full text)**

**Koch E**, Chireau M, Pliego F, Stanford J, Haddad S, Calhoun B, Aracena P, Bravo M, Gatica S, Thorp J. Abortion legislation, maternal healthcare, fertility, female literacy, sanitation, violence against women and maternal deaths: a natural experiment in 32 Mexican states. *BMJ Open*. 2015;5(2):e006013

**Koch E.** The Epidemiology of Abortion And Its Prevention in Chile. *Issues Law Med.* 2015 Spring;30(1):71-85.

Sandoval D, Chacón J, Muñoz R, Henríquez Ó, **Koch E**, Romero T. [Influence of psychosocial factors on adherence to antihypertensive drug therapy: results from a Cardiovascular Health Program cohort followed in the Metropolitan Region of Santiago, Chile]. *Rev Med Chil.* **2014;142(10):1245-52.**

**Koch E.** Impact of Reproductive Laws on Maternal Mortality: The Chilean Natural Experiment. *The Linacre Quarterly* 2013;80(2):151-160.

Gonzales R, **Koch E**, Poblete JA, Vera C, Muñoz H, Carroli G, et al. Consenso salud materna para Chile en el nuevo milenio. *Rev Chil Obstet Ginecol* 2013;78(2): 142-7

**Koch E**, Thorp J, Bravo M, Gatica S, Romero CX, Aguilera H, Ahlers I. Women's Education Level, Maternal Health Facilities, Abortion Legislation and Maternal Deaths: a Natural Experiment in Chile from 1957 to 2007. *PLoS ONE* 2012; 7(5):e36613.

**Koch E**, Aracena P, Gatica S, Bravo M, Huerta-Zepeda A, Calhoun B. Fundamental discrepancies in abortion estimates and abortion-related mortality: A reevaluation of recent studies in Mexico with special reference to the International Classification of Diseases. *Int J Women Health* 2012;4:613-23.

Sandoval D, Bravo M, **Koch E**, Gatica S, Ahlers I, Henríquez O, Romero T. Overcoming Barriers in the Management of Hypertension: The Experience of the Cardiovascular Health Program in Chilean Primary Health Care Centers. *Int J Hypertens* 2012:405892

**Koch E**, Aracena P, Bravo M, Gatica S, Stecher JF, Valenzuela S, Ahlers I. [Methodological flaws on abortion estimates for Latin America: authors' reply to Singh and Bankole]. *Ginecol Obstet Mex* 2012;80(11):740-7

**Koch E**, Bravo M, Gatica S, Stecher JF, Aracena P, et al. Sobrestimación del aborto inducido en Colombia y otros países latinoamericanos. *Ginecol Obstet Mex* 2012;80(5):360-372. 7



**Koch E**, Bravo M, Romero C, Díaz A, Castañeda H, Aguilera H, Niveló M, Romero T. Height, an early life predictor of cardiovascular risk factors and mortality in Chilean adults: The San Francisco Project Cohort Study. **Rev Chil Cardiol** 2011;30(3):198-206.

**Koch E**, Romero T, Romero CX, Aguilera H, Paredes M, Vargas M, Ahumada C. Early life and adult socioeconomic influences on mortality risk: preliminary report of a 'pauper rich' paradox in a Chilean adult cohort. *Ann Epidemiol* 2010;20:487-92.

**Koch E**, Romero T, Romero CX, Akel C, Manríquez L, Paredes M, Román C, Taylor A, Vargas M, Kirschbaum A. Impact of education, income and chronic disease risk factors on mortality of adults: does 'a pauper-rich paradox' exist in Latin American societies? *Public Health* 2010;124:39- 48.

**Koch E**, Bogado M, Araya F, Romero T, Díaz C, Manríquez L, Paredes M, Roman C, Taylor A, Kirschbaum A. Impact of parity on anthropometric measures of obesity controlling by multiple confounders. A cross-sectional study in Chilean women. *J Epidemiol Community Health* 2008;62(5): 461-470.

**Koch E**, Otárola A, Romero T, Kirschbaum A, Ortúzar E. Popperian epidemiology and the logic of bi-conditional modus tollens arguments for refutational analysis of randomised controlled trials. *Med Hypotheses* 2006;67:980-988.

**Koch E**, Otárola A, Kirschbaum A. A landmark for Popperian epidemiology: refutation of the randomised aldactone evaluation Study. *J Epidemiol Community Health* 2005;59(11):1000-1007.

**Koch E**, Romero T, Manríquez L, et al. Socioeconomic and educational inequities as independent predictors for mortality in a developing country: A cohort study in San Francisco, Chile. *Rev Méd Chil* 2007;135:1370-79.

**Koch E**, Otárola A, Manríquez L, Kirschbaum A, Paredes M, Silva C. Predictors of non fatal cardiovascular events in a Chilean cohort: results of the San Francisco Project. *Rev Med Chil* 2005; 133(9): 1002-12.

Rojas B, Sandoval D, **Koch E**, Díaz C, Akel C, Kirschbaum A. Enfermedades músculo esqueléticas en población hipertensa y su asociación con obesidad. Un estudio transversal en la Región Metropolitana, Chile. *Rev Chil Cardiol* 2008;27: 153-165.

**Koch E**, Romero T, Manríquez L, Taylor A, Román C, Paredes M, Díaz C, Kirschbaum A. Waist to height ratio: a better predictor of cardiovascular risk factors and mortality in Chilean adults. Diagnostic nomograms from the San Francisco project. *Rev Chil Cardiol* 2008; 27:11-21.

Mallol J, **Koch E**, Caro N, Sempertegui G, Madrid R. Prevalence of respiratory illnesses in infants whose mothers smoked tobacco during pregnancy. *Rev Chil Enfer Respir* 2007;23:23-29.

Llantén R, Alarcón D, Herrera M, **Koch E**, Leppe J. Six minute walk test according to the American Thoracic Society. An assessment of normal weight healthy Chilean children 6 to 14 years of age. *Rev Chil Cardiol* 2007;26:123-33.

**Koch E**, Diaz C, Romero T, et al. Waist-to-Height ratio to predict mortality in Chilean adults. An 8 year follow-up study. *Rev Chil Cardiol* 2007;26:415-428.

**Koch E**, Otarola A, Romero T, Manriquez L, Paredes M, Kirschbaum A, Ortuzar E, Taylor A, Caroline R, Vargas M. Anthropometric indexes and risk of non-fatal cardiovascular events in a Chilean population. The San Francisco Project. *Rev Chil Cardiol* 2006;25(2):173-84.

**Koch E**, Otarola A, Romero T, Kirschbaum A, Manriquez L, Paredes M. Social inequality as a cardiovascular risk factor in Chile. *Rev Chil Cardiol* 2005; 24(3):280-9.

Kirschbaum A, **Koch E**, Otarola A. Teoría de la ciencia de Karl R. Popper: el principio de falsación como criterio de objetividad y honestidad científica. *Psiquiatría y Salud Mental* 2005;22(1/2):106-16.

**Koch E**, Otarola A, Silva C, Manriquez L, Kirschbaum A. Capacidad aeróbica, composición corporal y gasto calórico asociado a oxidación de sustratos energéticos durante el ejercicio en mujeres sedentarias con sobrepeso. *Rev Chil Cardiol* 2005; 24(2):174-83.

**Koch E**, Silva C, Manriquez L, Ahumada C. Proyecto San Francisco parte I: alta prevalencia de factores de riesgo cardiovascular en población adulta mayor de 15 años. *Rev Chil Cardiol* 2000; 19(1): 27 – 42.

## **B. Letters, Editorials and peer-reviewed abstracts**

**Koch E**, Thorp J, Calhoun B, Valenzuela S, Gatica S, Aguilera H, Pérez JM. The elusive problem of causation on the relationship between abortion and mental health problems. Does it really matter to avoid public health recommendations? *British Journal of Psychiatry* 2011:e-letters. Published November 2. Available in [http://bjp.rcpsych.org/content/199/3/180/reply#bjrcpsych\\_el\\_34304](http://bjp.rcpsych.org/content/199/3/180/reply#bjrcpsych_el_34304)

**Koch E**, Romero T, Bravo M, Sandoval D, Romero C, Carreño A, Vargas P, De la Torre F. Coexisting Diabetes and Hipertensión Reduced the Frequency of Musculoskeletal Pain Visits: Suggestions of a Synergic Hypoalgesic Effect in a Cohort of 1,194 Hypertensive Patients. AHA Scientific Sessions 2011, Orlando, FL, USA. *Circulation* 2011; 124:A12027

**Koch E**, Romero T, Sandoval D, Romero CX, Bravo MA, Henríquez O, Urrutia L. Is Height an Independent Marker of Metabolic Syndrome in a Developing Society?. A Cross-sectional Study of 22,180 Chilean Adults. ESC Congress 2011, Paris, France. *European Heart Journal* 2011; 32(abstract suppl): 711-712.

Bravo M, Romero CX, Romero T, **Koch E**, Sandoval D, Cano M, Ahlers I, Henríquez O, Gajardo A.I.J. Daily Physical Activity and Blood Pressure Control in Hypertensive Patients Followed in Primary Care Centers in Chile. ESC Congress, Paris, France *European Heart Journal* 2011; 32(abstract suppl): 887-888.

**Koch E**, Romero T, Romero C, et al. Impact of Height on Cardiovascular Risk Factors and All-Cause Mortality: A Prospective Study in a Cohort of Chilean Adults. World Congress of Cardiology 2010; Beijing, China, 16 – 19 June 2010. *Circulation* 2010; 122(2):e63.

Bravo M, Romero T, Sandoval D, Romero C, Henríquez O, Urrutia L, Oyarzún E, Segovia I, **Koch E**. Physical Activity Levels and Hypertension in a Developing Country: A Chilean

Exploratory Study of 509 Patients. World Congress of Cardiology 2010; Beijing, China, 16 – 19 June 2010. *Circulation* 2010;122(2):e65.

**Koch E**, Romero T, Romero C, et al. Hypertension and Hypoalgesia: Analysis of Data from a Universe of 392,000 Hypertensive Patients under Antihypertensive Treatment. World Congress of Cardiology 2010; Beijing, China, 16 – 19 June 2010. *Circulation* 2010;122(2):e167.

**Koch E**, Gática S, Romero T, et al. Waist-to-Height Ratio as a Simple and Useful Measure of Define Visceral Adiposity and Metabolic Syndrome Risk: A CrossSectional Study in Chilean Women. World Congress of Cardiology 2010; Beijing, China, 16 – 19 June 2010. *Circulation* 2010;122(2):e254.

**Koch E**, Romero T, Romero C, et al. Impact of behavioural and biologic cardiovascular risk factors on the relationship between stature and all-cause mortality: 8-years follow-up study in a cohort of Chilean adults. ESC Congress 2009; España, Barcelona, August 30 2009. *Eur Heart J* 2009;30(suppl):153.

**Koch E**, Romero T, Sandoval D, et al. Hypertension-related hypoalgesia: a retrospective cohort study in a hypertensive population under pharmacologic treatment. ESC Congress 2009; España, Barcelona, August 30 2009. *Eur Heart J* 2009;30(suppl):295.

**Koch E**, Romero T, Diaz C, Manriquez L, Paredes M, Roman C, Taylor A. Accuracy of anthropometric measures of adiposity to predict cardiovascular risk factors in Chilean men and women. The San Francisco Project. World Congress of Cardiology 2008; Buenos Aires, 2008. *Circulation* 2008;118(12):e452.

**Koch E**, Romero T, Akel C, et al. Impact of cardiovascular risk factors on the relationship between education and mortality. A Chilean prospective cohort study: the San Francisco Project. World Congress of Cardiology 2008; Buenos Aires, 2008. *Circulation* 2008;118(12):e489.

**Koch E**, Romero T, Manriquez L, et al. Anthropometric indices of adiposity and metabolic risk factors. Proposal of waist-to-height ratio as a simple and useful measure to define

visceral obesity in Chilean men. EuroPREvent 2008; Paris, 1-3 May 2008. *Eur J Cardiovasc Prev Rehabil* 2008;15(Suppl 1):S144.

**Koch E**, Díaz C, Romero T, et al. Waist-to-height ratio, the best anthropometric measure to predict all-cause mortality in men and women- A Chilean prospective cohort study: the San Francisco Project. ESC Congress 2007; Austria, Vienna, 2007. *Eur Heart J* 2007;28 (Suppl 1):783. 10

## External Peer Review

*Annals of Internal Medicine; Journal of Epidemiology and Community Health; Postgraduate Medicine Journal; International Journal of Public Health; BMC Public Health, Social Sciences & Medicine.*

## Omitted Information

*This CV has been prepared to facilitate assessing research competences for international research grants and IRB applications. A complete Academic CV is available on request. In consequence, the following information has been omitted for this CV*

- List of 73 Abstracts related with presentations in National Scientific Meetings in Chile from 1995 to the present. All these abstracts have been published in Spanish language.
- All conferences in scientific meetings (National and International) • All Travel Grants for International Symposiums
- All the technical reports and working documents previous to 2008
- Letters, Op-Ed published in national and international newspapers
- Press articles quoting different research works (including interviews)
- Detailed Teaching history in Faculty of Medicine, University of Chile
- External Residence of Research
- Continuous Medical Education (CME)