

Brief CV for Olle Selinus, focusing mainly on medical geology

APPOINTMENTS

1969-1971 Stora Kopparbergs Bergslags AB,: Mining geologist at the Tomtebo mine
1971-1974 Stora Kopparbergs Bergslags AB: Consultant
1971-2010 Geological Survey of Sweden, Geochemist, State geologist
1978-1994 Deputy Director of the Geochemical department at SGU
1993-2010 Research secretary, Geol Survey of Sweden
1998-2003 Director of the Geochemical department at SGU
2011- Linneaus University, Kalmar, Sweden

1996 - The IUGS commission COGEOENVIRONMENT establishes a working group on Medical Geology. Chair Olle Selinus

1997 - The working group met at the 4th International Symposium on Environmental Geochemistry. The term "Medical Geology" was adopted.

1998 - Workshop with working group in Uppsala, Sweden. Discussions on preparing a textbook on Medical Geology. Organiser Olle Selinus

2000 - A combined meeting and workshop held in Uppsala was attended by 50 people, and included a two-day seminar: "The Geochemical Environment and Human Health", resulting in a proceedings volume. Organiser Olle Selinus

The International Geological Correlations Programme established a new programme: IGCP 454 Medical Geology, jointly sponsored by UNESCO and IUGS. It was chaired by Olle Selinus. The aim was to bring together scientists working on Medical Geology issues from the developed and the developing world, focusing on capacity building, training and exchange of information, research and laboratory experiences.

2001 – A large proposal was supported by the International Council of Science (ICSU) who granted \$50,000 in support of short courses in Medical Geology to be held in 2002-2003. Project leader Olle Selinus

2002 - The COGEOENVIRONMENT working group on Medical Geology was given Special Project status to operate directly under IUGS. Chair Olle Selinus

International meetings on Medical Geology were held in Chile, Russia, Netherlands, USA and Japan, also covering neighbouring countries and regions. Medical Geology was marketed in different media and ideas of the book on Medical Geology were developed.

2004 Medical Geology was part of the ICSU initiative "Science for Health and Well being" in Paris at the French Academy of Medicine. Representative Olle Selinus

2005 - The 1st Hemispheric Conference on Medical Geology was organized in Puerto Rico.

The book 'Essentials of Medical Geology' was published by Elsevier. Chief Editor Olle Selinus

2006 - The International Medical Geology Association, IMGA, was established. Chair Olle Selinus

A special symposium on Medical Geology was held at the Royal Academy of Sciences in Stockholm.
Chair Olle Selinus

2007 - The 2nd Hemispheric Conference on Medical Geology was held in Atibaya, Brazil.

2008 - United Nations General Assembly announced Medical Geology as one of the themes of the International Year of Planet Earth Chair Olle Selinus

IMGA had several sessions and a short course at the 33th International Geological Conference in Oslo (6000 participants). Olle Selinus vice president of this congress and responsible for a thematic day on water and health.

Olle Selinus invited to the Royal Castle to discuss in private with the Swedish king on medical geology. Grand opening of International Year of Planet Earth (UN initiative) at the Royal Academy of Sciences. The King opened the meeting. O Selinus organizer and chairman.

2009 - IMGA was involved in 'Mapping GeoUnions to the ICSU Framework for Sustainable Health and Wellbeing' as full members, represented by Olle Selinus.

Olle Selinus, was personally invited by the US State Department in Washington D.C. to be member of a government delegation, where a lunch seminar in Medical Geology was held for the US and Swedish government delegations.

The 3rd Hemispheric Conference on Medical Geology was held in Montevideo, Uruguay.

2010 - 'Medical geology – a regional synthesis' was published by Springer. Chief editor Olle Selinus

A Swedish textbook in Medical Geology was published by Studentlitteratur for university students. Chief editor, main author Olle Selinus

2011 – The 4th International Conference on Medical Geology in Bari, Italy. 300 participants

2011 Three Centers of Excellence in Medical Geology to be established. These will cover education and research in different parts of the globe, including staff, laboratories etc.

The first opens in Puerto Rico January 2010

The second will be opened in a year in Turkey

The third is under planning in South Africa

4th International Conference in Medical geology in Bari, Italy

2012 Second edition of Essentials of Medical Geology published by Springer

Some other activities

Short courses held with Olle Selinus as responsible and lecturer more than 60 times since 2001 in more than 40 countries in the world. The courses are between 2 days and one week.

Main organizer of many international meetings and conferences. Member of scientific board in numerous international conferences.

Member of the steering group of mineral exploration at the Royal Academy of Engineering Sciences. 1974-1980.

Member of the board of SEHP; Scientists for Environment and Health in Poland. 1989-2003

Member of the board of the Centre of Metal Biology of Uppsala 1992--2004

Officer of COGEOENVIRONMENT (international environmental geological commission).

Associate Editor of Applied Geochemistry 1993--

Member of the Swedish national reference group for Environment (EC) 1994-2009
Member of the board of the Swedish National committee for Geology under the Royal Academy of Sciences two 4-year periods
Member of international scientific group for project evaluation for the European Union 1997-2000 (INTAS)
Contact Point for EU activities at the Geological Survey of Sweden 1996-2004
Chair of Earth and Health under International Year of Planet Earth by United Nations General Assembly

Supervisor for several students at Swedish universities
Engaged as referee for numerous scientific papers.
Lecturer in Scandinavia in medical geology, regularly in all countries
Teaching of researchers at the University of Stockholm.
Regular teaching at the University of Uppsala and other universities.

Chief editor of following books:

Selinus, O., Alloway, B., Centeno, J. A., Finkelman, R. B., Fuge, R., Lindh, U., and Smedley, P. (Editors), 2005, *Essentials of Medical Geology*. Elsevier, Amsterdam, 820 p. (second edition published by Springer 2012)

Selinus, O, Finkelman, B, Centeno, J., 2009. Editors. *Medical Geology – a regional synthesis*. Springer. 2010.

Selinus, red. *Medicinsk geologi*. Studentlitteratur 2010

Working on a book in medical geology for the general public and decisions makers

In addition to this more than 100 peer reviewed scientific papers and many papers in popular journals and chapters in books. A majority in medical geology.

AWARDS

Appointed Geologist of the Year in Sweden 2006
Several international awards for the book *Essentials of Medical Geology*
Invited meetings with the Swedish King on Medical Geology and the United Nations International Year of Planet Earth
Several international awards from IUGS and other organisations
Several National awards

Selected publications by Olle Selinus in English in recent years.

1996

Selinus, O.C, Frank, A., Galgan, V. 1996. Biogeochemistry and metal biology - An integrated Swedish approach for metal related health effects. In: *Environmental geochemistry and Health in Developing Countries*. Ed. Appleton, D., Fuge, R., McCall, J. *Special Publication. Geological Society of London*, no 113, pp 81-89 Chapman and Hall.

Haglund, B., Ryckenberg, K., Selinus, O., Dahlvist, G., 1996. Evidence of a relationship between childhood-onset type 1 diabetes and low groundwater concentration of Zinc. *Diabetes Care*, Vol 19, No 8, August 1996

Selinus, O. C, 1996. Large scale monitoring in environmental geochemistry. *Applied Geochemistry*, vol 11, pp 251-260.

Selinus, O.C. (ed), 1996. Environmental geology maps from the Swedish Mid-Norden region. In Geological information for environmental and landuse planning in the Mid-Norden region. Ed P.R. Neeb. *Geological Survey of Finland. Special paper 77*, 67-104.

1997

Selinus, O., Zhang, C., 1997. Integrating GIS and multivariate statistics in environmental geochemistry. In: *4th International Symposium in Environmental Geochemistry*; proceedings. USGS Open file report, 1997: p82.

Zhang, C, Selinus O., 1997, Spatial Analysis on Copper, Lead, and Zinc Contents in Sediments of the Yangtze River Basin. *Science of the Total Environment* 204, pp 251-262.

1998

Chaosheng Zhang, Olle Selinus. 1998. Statistics and GIS in environmental geochemistry -- some problems and solutions. *Journal of Geochemical Exploration*. 64:339-354.

Chaosheng Zhang, Olle Selinus, Jan Schedin. 1998. Statistical Analyses on Heavy Metal Contents in Till and Root Samples in an Area of Southeastern Sweden. *The Science of the Total Environment* 212: 217-232.

Selinus, O., 1998. Global distribution of metal production: an overview. *Minerals and Metals Review. Golden Jubilee Commemorative issue*. Vol XXIII, No 3. Pp 178-179.

1999

Zhang, C.S., Selinus, O., Kjellstrom, G. 1999. Discrimination between natural mineralization and human pollution in environmental geochemistry --a case study in an area of southeastern Sweden. *The Science of the Total Environment* 243-244(0): 129-140.

Zhang, C., Wong, P., Selinus, O., 1999. Modeling variogram surfaces for an environmental geochemical dataset. *Geoinformatics and Socioinformatics. Proc. Geoinformatics 99*, Ann Arbor. Pp 1-7

2000

Berger, A., Selinus, O., Skinner, C., 2000. Medical Geology – an emerging discipline. A seminar on Health and the Geochemical Environment. *COGEOENVIRONMENT news*, no 17, pp 22-24

Selinus, O. Frank, A. 2000. Medical geology. In: Möller L. (ed.) *Environmental Medicine*, 333. *Joint Industrial Safety Council*, 164–183.

Zhang, C., Selinus, O. & Wong, P., 2000. Spatial structures of cobalt, lead, and zinc contents in tills in southeastern Sweden. *GFF(Transactions of the Geological Society in Stockholm)*, Vol. 122 (Pt. 2, June), pp. 213-217.

Zhang, C., Wong, P., Selinus, O., 2000. A comparison of outlier detection methods: Exemplified with an environmental geochemical dataset.

2001

Berger, A., Selinus, O., Skinner, C., 2001. Medical Geology – an emerging discipline. *Episodes*, Vol 24, No 1. Pp 43-44.

Ceruti, P., Davies, T., Selinus, O., 2001. Geomed 2001 – Medical Geology, the African Perspective. *Episodes* Vol 24, No 4. Pp 268-270.

Selinus, O., Rundgren, 2001. Göteborgsprojektet. Geokemi i Göteborgs kommun 2000. Kartor över tungmetaller och organiska miljögifter. SGU.

2002

Backlund, P., Holmbom, B., Leppäkoski, E., Migula, P., Selinus, O., 2002. Heavy Metals. In *Environmental Science for the Baltic Sea Basin*. Ed L. Ryden

Selinus, O., 2002. Medical Geology: Method Theory and Practice. In *Geoenvironmental mapping*. Pp 473-496.. Balkeema press.

2003

Bowman, C., Bobrowski, P., Selinus, O., 2003. Medical geology – new relevance in the earth sciences. *Episodes*, Dec 2003

2004

Centeno JA, Finkelman RB, Olle S. Medical Geology: An Emerging Discipline. *Pathology International* 2004;54(Suppl.1):S128-S130.

Frank, A., Danielsson, R., Selinus, O., 2004. Comparison of two monitoring systems for Cu and Mo in the Swedish environment. *Science of the Total Environment*. 330, pp131-143.

Robert B. Finkelman, Jose A. Centeno, and Olle Selinus, 2004. The Emerging Medical and Geological Association. *Transactions of the American Clinical and Climatological association*

Finkelman, R.B., Centeno, J.A., Selinus, O, Pereira, J.J., 2004. Medical Geology: An Emerging Discipline. *Published in Malaysia*

Selinus, O., 2004. Medical geology – an emerging specialty. *Terrae*, Vol 1:1, A1-A8

2005

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Centeno JA, Mullick FG, Finkelman RB, Selinus O. Medical Geology – An Emerging Discipline in Support of Environmental and Military Medicine. *Mil Med Tech* 2005;9(5):7-9.

Lax, Kaj, Selinus Olle, 2005. Geochemical mapping at the Geological Survey of Sweden *Geochemistry: Exploration, Environment, Analysis*, Vol. 5 2005, pp. 337–346

Ljung, K., Selinus, O., Berglund, M. 2005. Metal distribution in soil particle sizes with regard to bioavailability. Focus on Soils Symposium “*Managing Soils for the Future*”, Uppsala, Sweden, Sept 14-16, 2005.

Selinus, O., Alloway, B., Centeno, J. A., Finkelman, R. B., Fuge, R., Lindh, U., and Smedley, P. (Editors), 2005, *Essentials of Medical Geology*. Elsevier, Amsterdam, 820 p.

Olle Selinus, Robert B. Finkelman, Jose A. Centeno 2005. The Medical Geology revolution. The evolution of an IUGS initiative, *Episodes*

2006

Centeno JA, Finkelman RB, Selinus O, Mullick FG. Global Impacts of Geogenic Arsenic – A Medical Geology Research Case. In Abstracts: International Symposium on Medical Geology, *Royal Swedish Academy of Sciences*, Stockholm, Sweden. May 2006.

Centeno, J. A., Cook, A., Weinstein, P., Mullick, F., Finkelman, R. B., and Selinus, O., 2006, Health effects of natural and mineral dust: The role of trace elements and compounds. *XXVI International Congress of the Academy of Pathology*.

Centeno JA, Cook A, Weinsteinn, P, Mullick, FG, Finkelman RB, Selinus, O. Health Effects of Natural and Mineral Dust – The Role of Trace Elements and Compounds. In Book of Proceedings *XXVI International Academy Congress of the International Academy of Pathology*, Symposium on Environmental Pathology – Respiratory Toxicology, Montreal, Canada, September 16-21, 2006; CD media publication.

Ljung, K., Oomen, A., Duits, M., Selinus, O., Berglund, M. Metal bioaccessibility of urban playground soil. *Journal of Environmental Science and Health – Part A*, special issue on bioaccessibility of soil contaminants, Accepted.

Ljung, K., Selinus, O., Berglund, M., Otabbong, E. 2006. Metal distribution in soil particle sizes relevant to soil ingestion by children. *Applied Geochemistry* 21, 1613-1624.

Ljung, K., Selinus, O. & Otabbong, E. 2006. Metals in soils of children's urban environments in the small northern European city of Uppsala. *Science of the Total Environment* 366, 749-759.

Ljung, K., Otabbong, E. & Selinus O. 2006. Natural and anthropogenic trace metal inputs to soils in urban Uppsala, Sweden. *Environmental Geochemistry and Health*. 28, 353-364.

Selinus, O., Finkelman, Robert B., and Centeno, Jose, A., 2006, Medical problems related to geology and ecosystem interaction. In *Geology and Ecosystems*, Igor S. Zektser and Brian Marker, eds., Springer, Chapter 16, p.197-218.

Selinus O, Finkelman RB, Centeno JA. The Medical Geology Revolution. *Chinese J. of Geochemistry* 2006;25(S):81.

Selinus O, Finkelman RB, Centeno JA. Human Health and Ecosystems. In *Geology and Ecosystems* (Zektser IS, Marker B, Ridgway J, Rogachevskaya L, and Vartanyan G, editors), Springer, ISBN 0-387-29292-6, Part IV, 2006

Selinus, O., Finkelman, R. B., Centeno, J. A., and Lax, K., 2006, Medical Geology – a new future for Geoscience. *European Geologist*, p. 27- 30.

2007

Centeno, J. A., Selinus, O., and Finkelman, 2007, Medical geology: Milestone and current developments. *XI Congresso Brasileiro de Geoquímica*. CD-Rom.

Finkelman, R. B., Selinus, O., and Centeno, J., eds., 2007, Vol. 29, *Journal of Environmental Geochemistry and Health*. Special Volume.

Finkelman, R. B., Selinus, O., and Centeno, J., eds., 2007, Vol. 29, *Journal of Environmental Geochemistry and Health*. Special Volume Introduction, p.81-82.

Finkelman, R. B., Centeno, J., and Selinus, O., 2007, Medical Geology: The Future. *XI Congresso Brasileiro de Geoquímica*. CD-Rom.

Finkelman, R. B., Selinus, O., and Centeno, J., eds., 2007, Vol. 29, *Journal of Environmental Geochemistry and Health*. Special Volume Introduction, p.81-82.

Finkelman, Robert B., Centeno, Jose, A., and Selinus, Olle, 2007, Medical Geology: The emergence of a new discipline. *Terrae*, Vol. 2, No. 1-2, p.3-8.

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Selinus, O., Finkelman, R. B., and Centeno, J. A., 2007, The International Medical Geology Association now and in the near future. *XI Congresso Brasileiro de Geoquímica*. CD-Rom.

Selinus, O., Finkelman, R. B., and Centeno, J. A., 2007, The medical geology revolution – The evolution of an IUGS initiative. *Episodes*, Vol. 30, no. 4, p. 305- 309.

Editor of Medical Geology in Developing Countries. *Two special issues of Environmental Geochemistry and Health* Vol 29, No 2 2007 and Vol 30 No 4 2008.

2008

Finkelman RB, Centeno JA, Selinus O. Medical Geology – Threat or Opportunity. *AIPG* 2008;46-49.

Salminen, Reijo, Kousa, Anne, Ottesen, Rolf Tore, Selinus, Olle, Steinnes, Eiliv, Tarvainen, Timo, and Öhlander, Björn 2008. Environmental Geology (Including Geology and Health in Scandinavia). *Episodes* Vol 31, No 1. pp 155-163.

Selinus, O, Finkelman, R., B., Centeno, J. A., 2008, 2nd Hemispheric Conference on Medical Geology, *Episodes*, vol.20, no. 1,

Selinus, O., Finkelman, R. B., and Centeno, J. A., editors, 2008, *Environmental Geochemistry and Health*, Vol. 30, no. 4. Special Issue: Medical Geology in Developing Countries, Part 2. p. 305-389.

Selinus, O, Weinstein, P, 2008. Nature and medicine – a breakthrough of human health. *Official publication of IYPE*. pp 70-72

Selinus, O., Alloway, B., Centeno, J. A., Finkelman, 2008. The medical geology revolution – the evolution of an IUGS initiative. *Episodes* Vol 30, No 4.

Selinus Olle, Finkelman Robert, Centeno Jose, Cave Mark, 2008 Medical Geology – the European perspective. *Acta Hungaria*.

2009

Selinus Olle, Finkelman Robert, Centeno Jose, 2008. Medical Geology – Impacts of the Natural Environment on Human Health. *Japanese Journal of Environmental Geology*.

Selinus, O, Finkelman, B, Centeno, J., 2009. Medical Geology, the future. IYPE special publication, Portugal.

2010

Selinus, O., Mustonen, L., 2010. Medicinsk geologi – hur naturen påverkar vår hälsa. *Näringsmedicinsk tidskrift* 2010-2.

Selinus O, Finkelman RB and Centeno JA (2011) Principles of Medical Geology. In: Nriagu JO (ed.) *Encyclopedia of Environmental Health*, volume 4, pp. 669–676 Burlington: Elsevier.

Selinus, O, Finkelman, B, Centeno, J., 2009. Editors. *Medical Geology – a regional synthesis*. Springer. 2010.

Selinus, red. *Medicinsk geologi*. Studentlitteratur 2010

2011

Selinus, O., 2011 Fosfortillgångar på jorden – hur, var och hur mycket? FORMAS

2012

Selinus. Jordens hemliga gifter. *Hälsa* 6 2012

2013

Selinus, O., Alloway, B., Centeno, J. A., Finkelman, R. B., Fuge, R., Lindh, U., and Smedley, P. (Editors), 2013, *Essentials of Medical Geology*. Springer. Second edition 805pp .

Morain, Kumar, Stohlgren, Selinus, Steinnes, Rosenberg, Lo, 2013. Environmental modelling for health. In *Environmental tracking for public health surveillance*. Eds. Morain, Budge. CRC press.

Selinus, O. 2013 *Geochemical Aspects of Medical Geology*. In *Sri Lanka Journal of Geology*. Ed C. Dissanayake.

2014

Selinus O., 2014. Elements in bedrock and the influence on water. In *Drinking water minerals and mineral balance –importance, health significance, precautionous principle*. Editor I Rosborg. Springer.

Selinus O., 2014. Elements in bedrock and the influence on water. In *Drinking water minerals and mineral balance –importance, health significance, precautionous principle*. Editor I Rosborg. In press Springer.

Selinus, O. 2014. *Nordic Geology and Health*. In *Geography and Health*, eds Schaerström, Jörgensen, Kistemann, Sivertun. Publisher: National Defence council, NTNU, Universtät Bonn.

Selinus, O. 2014. *Medical geology and medical geography. Applications and databases*. In *Geography and Health*, eds Schaerström, Jörgensen, Kistemann, Sivertun. Publisher: National Defence council, NTNU, Universtät Bonn