

Selenium Research

International Society for Selenium Research

Issue 2, Summer 2015

Remarks

Gary S. Bañuelos, President, ISSR

Dear Members:

Welcome to our International Society for Selenium Research (ISSR) newsletter (2015). As President it is my great pleasure to make contact all of you again before we meet some of you at the 4th International Conference in Sao Paulo, Brazil from October 18 through 21 2015. This conference will strive to create an interdisciplinary scientific atmosphere and try to connect various research activities representing the multi-nature of selenium research in the world. For this conference, we have received over 100 abstracts from 28 different countries, and we have developed a scientific program that includes over 55 oral and 43 presentations. Topics to be presented include: Se biofortification, biogeochemical cycle of Se, function of Se, selenoproteins for human and animal health, biological uptake and accumulation of Se and roles of soil microbes, Se speciation analyses in soil and plant, and interaction between selenium and other trace elements such as mercury and arsenic. The conference local organizing committee is committed to staging a multi-faceted and exciting selenium conference, which will culminate in an exciting post-conference field excursion to a Brazil nut farm in Manaus, Amazon,

as well as a half day excursion to piranha and crocodile infested rivers. During the conference, as our conference tradition, there will be organized Happy Hour at the end of each day, which will not only provide leisure but also important opportunities for interactive discussions to continue.

During the conference, the ISSR will meet for all interested, and membership will be strongly encouraged. At this society meeting, one important topic among others will be discussed, i.e., a proposed international multi-faceted proposal that will be submitted to Chinese Academy of Sciences to explore Se accumulation in local residents and agro-ecosystems in a Se-enriched village in Shitai, China. For the Brazilian conference, the local organizers - Professor Dr. Milton Ferreira Moraes, Professor Dr. Luiz Roberto Guimarães Guilherme, Professor Dr. André Rodrigues dos Reis, Professor Dr. Guilherme Lopes have spared no time or effort in organizing an unforgettable and enriching Se conference for our participants. Just as important, the unselfish efforts and co-leadership of Professor Zhi-Qing Lin was key to the organization of the conference and the CRC Press publication of our conference proceedings. Indeed, this conference has attracted selenium

Highlights

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- 4th International Conference on Selenium in the Environment and Human Health will be held on 18-21 October 2015 in Sao Paulo, Brazil.
The conference program is available on line at:
www.seleniumresearch.org
- Post-Conference Field Trip to Manaus, Amazon, including; visit to Brazilian nut farm, jungle river tour, and/or city tour of Manaus.
- International Society for Selenium Research:
Membership dues can be paid at the conference.
- The proceedings will be published by CRC Press in October 2015, including 98 peer-reviewed extended abstracts.

researchers from around the world, and I fully anticipate that we all will create and contribute to the making of a very successful selenium conference. As “Selena,” the selenium goddess, once expressed, “Learn as much as you



Selene - Goddess of the Moon
(Selenium in China)

can about me and you will live a healthy, happy life.”

Lastly, please remember that selenium research will be 200 years

old in 2017. As tribute to “Selena” and selenium, Professor Elias Arner will be the principle organizer of the Se 2017 conference that will take place in August 2017 in Stockholm, Sweden. More information will be presented at the conference in Sao Paulo, Brazil.

Other Important Notes:

- 1) Your conference registration fee can be paid on site at the conference registration in cash or using major credit cards.
- 2) A hardcover book with our peer-reviewed two-page extended abstracts will be published by CRC Press in October 2015. The book will be free for all conference participants. It can

also be purchased at CRC website (\$127 USD).

- 3) A limited number of conference scholarships will be provided to partially support junior scientists or students from developing countries.
- 4) Local transportation assistance will be provided by local graduate student volunteers to assure that conference participants can safely and conveniently reach the conference hotel from Sao Paulo airports.

Conference webpage:
www.seleniumresearch.org

5th International Conference on Selenium in the Environment and Human Health, 13-17 August 2017, Stockholm, Sweden.
Conference Website: <http://se2017.se/>

Post-Conference Field Trip to Manaus, Amazon



A special field trip to a Brazil nut farm in Manaus has been scheduled on October 22nd (Thursday), 2015. The Brazil nut farm is about 3 hours by bus from downtown Manaus.

Thus, the group visit will be a whole day event. The conference presentations will be ended around 3:30 PM on the 21st (Wednesday), and we will need to leave conference center as a group for GRU airport in Sao Paulo around 4:00 PM. We recommend you to book and purchase your flight on G3-1652 (Gol Linhas Aereas) from Sao Paulo (GRU) departing at 8:50pm to Manaus (MAO) on the 21st, and arriving at 10:38 PM. The hotel in Manaus is Saint Paul Hotel, located at a historic area in down town Manaus.

You can make your own hotel reservations through the hotel website (provide website) or through your travel agency. The rate is \$51 per night. However, if you need help from the local organizers, contact Dr. Andre Reis (andrereis@dcs.ufla.br) at your earliest convenience.



The conference organizers will only coordinate the post conference field trip, if assistance is needed. If you need to return back to Sao Paulo after the field trip,

we recommend you to fly G3-1653 from Manaus (MAO) to

Sao Paulo (GRU) on the 24th. The departure time is 11:10 AM and the arrival time is 4:10 PM. The expenses of this field trip will include, but are not limited to, Airfare from Sao Paulo to Manaus (one way ~\$150 or round trip ~\$376), hotel in Manaus (\$51/night), bus costs from the airport to the hotel (\$10) and from the hotel to the Brazil nut farm (\$35). Individual participant is responsible for his/her own travel expenses.

Manaus City Tour & Jungle Tour to Piranha-Infested River

General overview for those of you who want to experience on the Solimões River enriched with piranhas and alligators. Leave hotel at 3 PM and return at 7:30 PM. Costs are \$40/person and include pick-up with AC vehicle, guide, and water. On October 23, prior to your departure from Manaus, we recommend you to participate in a Manaus City tour in the morning (four hours). Leave hotel at 8:30 AM and return at 12:30 PM. Visit Manaus Harbor and Rio Negro, Customs Building, Lighthouse Tower, Amazon Courthouse, Amazonas Theater, Indian Museum, and Municipal Market of Manaus. Costs are \$26 per person and include pick-up with AC vehicle, tickets to attractions, guide, and water.



The Brazilian Organizers of the 4th International Conference on Selenium in Sao Paulo, Brazil

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International Society for Selenium Research



See link for information on mission, membership, elected officers and duties as well as other pertinent society information.

www.seleniumresearch.org



The membership due of \$50 (for a regular member for two years) or \$20 (for a student member for two years) can be paid via the following approaches:

- The payment can be made in cash at the selenium conference;
- The fund can be transferred through Western Union (www.westernunion.com) or other companies with money transfer service;
- Remitting the payment in the form of a cashier's check, certified check, or money order payable to *International Society for Selenium Research*.

You can pay your dues in cash at the conference, or send your check or fund transfer notice to:

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Topics Included in the Proceedings

Biogeochemistry of selenium

The global biogeochemical cycle of selenium: Sources, fluxes and the influence of climate

L.H.E. Winkel

Topsoil selenium distribution in relation to geochemical factors in main agricultural areas of China

T. Yu, Z.F. Yang, Q.Y. Hou, Y.Y. Lv, X.X. Xi & M. Li

Examining continental and marine sources of selenium in rainfall

T. Blazina, L.H.E. Winkel, A. Läderach, H. Wernli & J. Kirchner

The role of phytoplankton in marine selenium cycling

K.E. Luxem, B. Vriens, R. Behra & L.H.E. Winkel

Biogenic volatilization of nanoscale selenium particles in the soil-*Stanleya pinnata* system

J. Wang, R. Mahajan, L. Jones, Z.-Q. Lin & Y.H. Xie

Global predictions of selenium distributions in soils

G.D. Jones & L.H.E. Winkel

Selenium in agroecosystems in tropical areas: A focus in Brazil

L.R.G. Guilherme, G.S. Carvalho, E.C. Silva Júnior, L.B. Abreu, G.A. Souza & J.J. Marques

Selenium soil mapping under native Brazil nut forests in Brazilian Amazon

K.D. Batista, K.E. da Silva, G.C. Martins, L.H.O. Wadt, L.M. da Silva, N.J.M. Júnior, M.C. Guedes, R.C. de Oliveira Júnior, C.A.S. Magalhães & A.B.B. Tardini

Fate of selenium in soil and engineered suboxic and anoxic environments

L. Charlet, B. Ma, A. Fernandez Martinez, R.M. Couture, M.R. Broadley & A.D.C. Chilimba

Soil selenium contents, spatial distribution and their influencing factors in Heilongjiang, China

Feng-qin Chi, En-jun Kuang, Jiu-ming Zhang, Qing-rui Su, DanWei & Qiang Xu

Selenium sorption in tropical agroecosystems

G. Lopes, L.R.G. Guilherme, A.M. Araujo & J.H.L. Lessa

Ionic strength effects upon selenate adsorption in cultivated and uncultivated Brazilian soils

A.M. Araujo, J.H.L. Lessa, G.A. Souza, L.R.G. Guilherme & G. Lopes

Soil cultivation affects selenate adsorption in Cerrado soils in Brazil

J.H.L. Lessa, A.M. Araujo, L.R.G. Guilherme & G. Lopes

The effect of calcination on selenium speciation in selenium-rich rock

H.Y. Zhang, M. Lui, Y. Xiao, Z.Y. Bao, C.H. Wei & X.L. Chen

The fraction of selenium in cumulated irrigated soil in Gansu Province, China: Effect of aging

J. Li, S.Y. Qin, P.Y. Feng, N. Man & D.L. Liang

Comparative study on the extraction methods and the bioavailability of soil available selenium

Z. Wang, S. Tu & D. Han

Partitioning of SeNPs in the water soluble and the exchangeable fractions and effects of soil organic matter and incubation time

M.M. Rashid, Z.-Q. Lin & F. Kaniz

A rapid analytical method for selenium species by high performance liquid chromatography (HPLC) coupled with inductively coupled plasma mass spectrometry (ICP-MS)

H. Tian, Z.Y. Bao, X.L. Chen, C.H. Wei & Z.Y. Tang

Determination of selenium species in Se-enriched food supplement tablets by anion-exchange liquid chromatography-hydride generation-atomic fluorescence spectrometry

N. Zhang, L. Liu, W. Ren & S. Chen

Selenium speciation in plants by HPLC-ultraviolet treatment-hydride generation atomic fluorescence spectrometry using various mobile phases

D. Han, S. Xiong, S. Tu, Z. Xie, H. Li, M. Imtiaz, J. Zhou & D. Xing

Synchrotron studies of selenium interactions with heavy elements

I.J. Pickering, G.N. George, T.C. MacDonald, P.H. Krone & M. Korbas

Cellular and molecular functions of selenium

Selenium atom-specific modifications (SAM) of nucleic acids for human health

R. Abdur, W. Zhang, H. Sun & Z. Huang

Comparative cytotoxicity and antioxidant evaluation of biologically active fatty acid conjugates of water soluble selenolanes in cells

A. Kunwar, P. Verma, K.I. Priyadarsini, K. Arai & M. Iwaoka

Diselenodipropionic acid as novel selenium compound for lung radiotherapy

K.I. Priyadarsini, A. Kunwar, V.K. Jain, V. Gota & J. Goda

Association of selenoprotein and selenium pathway genetic variations with colorectal cancer risk and interaction with selenium status

D.J. Hughes, V. Fedirko, J.S. Jones, L. Schomburg, S. Hybsier, C. Méplan, J.E. Hesketh, E. Riboli & M. Jenab

Selenoenzymes iodothyronine deiodinases: 1. Effects of their activities in various rat tissues by administered antidepressant drug Fluoxetine

S. Pavelka

Selenoenzymes iodothyronine deiodinases: 2. Novel radiometric enzyme assays for extremely sensitive determination of their activities

S. Pavelka

The role of thioredoxin reductase 1 in cancer

E.S.J. Arnér

Selenoprotein T: A new promising target for the treatment of myocardial infarction and heart failure

I. Boukhalfa, N. Harouki, L. Nicol, A. Dumesnil, I. Rémy-Jouet, J.-P. Henry, C. Thuillez, A. Ouvrard-Pascaud, V. Richard, P. Mulder & Y. Anouar

Selenium status in humans: Measures, methods, and modifiers

L. Schomburg

Selenoneine is the major Se compound in the blood of Inuit consuming of traditional marine foods in Nunavik, Northern Canada

M. Lemire, A. Achouba, P.Y. Dumas, N. Ouellet, P. Ayotte, M. Martinez, L. Chan, B. Laird & M. Kwan

Selenium as a regulator of immune and inflammatory responses

P.R. Hoffmann

Effects of selenium exposure on neuronal differentiation of embryonic and induced pluripotent stem cells

M. Li & Z. Qiu

Functional deletion of brain selenoenzymes by methylmercury

N.V.C. Ralston & L.J. Raymond

The "SOS" mechanisms of methylmercury toxicity

N.V.C. Ralston & L.J. Raymond

Effects of selenium on animal, human and plant health

Role of the selenium in articular cartilage metabolism, growth, and maturation

C. Bissardon, L. Charlet, S. Bohic & I. Khan

Intestinal bioaccessibility and bioavailability of selenium in elemental selenium nano-/microparticles

G. Du Laing, R.V.S. Lavu, B. Hosseinkhani, V.L. Pratti, F.M.G. Tack & T. Van deWiele

Autoimmunity against selenium transport in human sera

W.B. Minich, A. Schuette, C. Schwiebert, T. Welsink, K. Renko & L. Schomburg

Natural small molecules in protection of environment and health: Sulfur-selenium deficiency and risk factor for man, animal and environment

R.C. Gupta

Incubation and crude protein separation from selenium-enriched earthworms

Y. Qiao, X. Sun, S. Yue, Z. Sun & S. Li

Health impact of dietary selenium nanoparticles on mahseer fish

K.U. Khan, A. Zuberi, Z. Jamil, H. Sarwar, S. Nazir & J.B.K. Fernandes

Pathways of human selenium exposure and poisoning in Enshi, China

J.-M. Zhu, H.-B. Qin, Z.-Q. Lin, T.M. Johnson & B.-S. Zheng

Selenium status in Iran: A soil and human health point of view

B. Atarodi & A. Fotovat

Impact of high selenium exposure on organ function & biochemical profile of the rural population living in seleniferous soils in Punjab, India

R. Chawla, R. Loomba, R.J. Chaudhary, S. Singh & K.S. Dhillon

Keshan disease and Kaschin-Beck disease in China: Is there still selenium deficiency?

D. Wang, Y. Liu & D. Liu

Influence of canola oil, vitamin E and selenium on cattle meat quality and its effects on nutrition and health of humans

M.A. Zanetti, L.B. Correa, A. Saran Netto, J.A. Cunha, R.S.S. Santana & S.M.F. Cozzolino

Selenium content of food and estimation of dietary intake in Xi'an, China

Z.W. Cui, R. Wang, J. Huang, D.L. Liang & Z.H. Wang

Assessment of selenium intake, status and influencing factors in Kenya

P. Biu Ngigi, G. Du Laing, C. Lachat & P. Wafula Masinde

Selenium improves the biocontrol activity of *Cryptococcus laurentii* against *Penicillium expansum* in tomato fruit

J. Wu, Z. Wu, M. Li, G.S. Bañuelos & Z.-Q. Lin

Antifungal activity of selenium on two plant pathogens *Sclerotinia sclerotiorum* and *Colletotrichum gloeosporioides*

Y. Zhang, H. Jiang, H. Zang, G. Tan, M. Li, L. Yuan & X. Yin

Exogenous selenium application influences lettuce on bolting and tipburn

X.X. Wang, Y.Y. Han & S.X. Fan

Biological uptake and accumulation of selenium

The genetics of selenium accumulation by plants

P.J. White

The genetic loci associated with selenium accumulation in wheat grains under soil surface drenching and foliar spray fertilization methods

T. Li, A. Wang, G. Bai, L. Yuan & X. Yin

Molecular mechanisms of selenium hyperaccumulation in *Stanleya pinnata*: Potential key genes *SpSultr1;2* and *SpAPS2*
M. Pilon, A.F. El Mehdawi, J.J. Cappa, J. Wang & E.A.H. Pilon-Smits

Effect of soil pH on accumulation of native selenium by Maize (*Zea mays var. L*) grains grown in Uasin Gishu, Trans-Nzoia Kakamega and Kisii counties in Kenya

S.B. Otieno, T.S. Jayne & M. Muyanga

Quantification, speciation and bioaccessibility of selenium from Se-rich cereals cultivated in seleniferous soils of India

N. Tejo Prakash

Wautersiella enshiensis sp. nov. – selenite-reducing bacterium isolated from a selenium-mining area in Enshi, China

Z. Qu, L. Yuan, X. Yin & F. Peng

Selenium in Osborne fractions of Se-rich cereals and its bioaccessibility

N.I. Dhanjal, S. Sharma & N. Tejo Prakash

New insights into the multifaceted ecological and evolutionary aspects of plant selenium hyperaccumulation

E.A.H. Pilon-Smits, A.F. El Mehdawi, J.J. Cappa, J. Wang, A.T. Cochran, R.J.B. Reynolds & M. Sura-de Jong

Comparative effects of selenite and selenate on growth and selenium uptake in hydroponically grown pakchoi (*Brassica chinensis* L.)

Q. Peng, Z. Li & D.L. Liang

Does selenium hyperaccumulation affect the plant microbiome?

A.T. Cochran, J. Bauer, R.J.B. Reynolds, E.A.H. Pilon-Smits, M. Sura-de Jong, K. Richterova & L. Musilova

Effects of sulfur and selenium interaction on pakchoi growth and selenium accumulation

S.Y. Qin, W.L. Zhao, Z. Li & D.L. Liang

Are all Brazil nuts selenium-rich?

E.C. da Silva Júnior, L.R.G. Guilherme, G. Lopes, G.A. de Souza, K.E. da Silva, R.M.B. de Lima, M.C. Guedes, L.H.O. Wadt & A.R. dos Reis

Accumulation of mercury and selenium by *Oryza sativa* from the vicinity of secondary copper smelters in Fuyang, Zhejiang, China

X. Yin, J. Song, Z. Li, W. Qian, C. Yao, Y. Luo & L. Yuan

Selenium and mycorrhiza on grass yield and selenium content

S.M. Bamberg, M.A.C. Carneiro, S.J. Ramos & J.O. Siqueira

High selenium content reduces cadmium uptake in *Cardamine hupingshanensis* (*Brassicaceae*)

Z.Y. Bao, H. Tian, Y.H. You & C.H. Wei

Selenium accumulation and its effects on heavy metal elements in garlic

A.Q. Gu, Y.Y. Luo, H. Tian, Z.Y. Bao, C.H. Wei & X.L. Chen

Effect of selenium on cadmium uptake and translocation by rice seedlings

Y.N. Wan, S.L. Yuan, Z. Luo & H.F. Li

Selenium biofortification

Environmental pathways and dietary intake of selenium in a selenium rich rural community in China: A natural biofortification case study

G.S. Bañuelos, J. Tang, Y. Hou, X. Yin & L. Yuan

Effects of agronomic biofortification of maize and legumes with selenium on selenium concentration and selenium recovery in two cropping systems in Malawi

A.D.C. Chilimba, S.D. Young & E.M. Joy

Potential roles of underutilized crops/trees in selenium nutrition in Malawi

D.B. Kumssa, E.J.M. Joy, S.D. Young, M.R. Broadley, E.L. Ander, M.J. Watts & S. Walker

Necessity of biofortification with selenium of plants used as fodder and food in Romania

L. Radu, A.-R. Lacatusu, M.M. Stanciu-Burileanu, & M. Lungu

The selenium content of organically produced foods in Finland

P. Ekholm, G. Alfthan & M. Euroala

Effects of soil selenium ore powder application on rice growth and selenium accumulation

W. He, B. Du, Y. Luo, H. Chen, H. Liu, S. Xiao, D. Xing & J. Xu

Agronomic biofortification of *Brachiaria* with selenium along with urea

L.A. Faria, M.C. Machado, A.L. Abdalla, P.P. Righeto, L.L. Campos, F.H.S. Karp & M.Y. Kamogawa

Effects of different foliar selenium-enriched fertilizers on selenium accumulation in rice (*Oryza sativa*)

Q. Wang, X.F. Wang, J.X. Li, Y.B. Guo & H.F. Li

Using agronomic biofortification to reduce micronutrient deficiency in food crops on loess soil in China

H. Mao, G.H. Lyons & Z.H. Wang

Effect of selenium treatment on biomass production and mineral content in common bean varieties

M.A. de Figueiredo, D.P. Oliveira, M.J.B. de Andrade, L.R.G. Guilherme & L. Li

Biofortification of irrigated wheat with Se fertilizer: Timing, rate, method and type of wheat

I. Ortiz-Monasterio, M.E. Cárdenas & G.H. Lyons

Egg and poultry meat enrichment of selenium

A.G. Bertechini, V.A. Silva, F.M. Figueiredo & T.F.B. Oliveira

Strategies for selenium supplementation in cattle: Se-yeast or agronomic biofortification

J.A. Hall & G. Bobe

Selenoneine content of traditional marine foods consumed by the Inuit in Nunavik, Northern Canada

P. Ayotte, A. Achouba, P. Dumas, N. Ouellet, M. Lemire, L. Gautrin, L. Chan, B. Laird & M. Kwan

Genotypic variation and agronomic biofortification of upland rice with selenium

H.P.G. Reis, J.P.Q. Barcelos, A.R. dos Reis & M.F. Moraes

Effect of selenium fertilization on nitrogen assimilation enzymes in rice plants

J.P.Q. Barcelos, H.P.G. Reis, A.R. dos Reis & M.F. Moraes

Selenium status in Brazilian soils and crops: Agronomic biofortification as a strategy to improve food quality

A.R. dos Reis

Effects of selenium-enrichment on fruit ripening and senescence in mulberry trees

J. Wu, Z. Wu, M. Li, Y. Deng, G.S. Bañuelos & Z.-Q. Lin

Wheat biofortification: Genotypic variation and selenium fertilization in Brazil

C.R.S. Domingues, J.A.L. Pascoalino, M.F. Moraes, C.L.R. Santos, A.R. dos Reis, F.A. Franco, A. Evangelista & P.L. Scheeren

Improving selenium nutritional value of major crops

L. Li, F.W. Avila, G.A. Souza, P.F. Boldrin, M.A. de Figueiredo, V. Faquin, M.J.B. Andrade, L.R.G. Guilherme & S.J. Ramos

The changing selenium content in vegetables and nutritional status of Chinese residents

W. Shi, S. Li, J. Min, L. Wu & G.S. Bañuelos

Selenium and nano-selenium biofortified sprouts using micro-farm systems

H. El-Ramady, T. Alshaal, N. Abdalla, J. Prokisch, A. Sztrik, M. Fári & É. Domokos-Szabolcsy

The standardization of selenium biofortification in China

X. Yin & F. Li

The chemical form of selenium in dietary supplements

G.N. George, S.I. Yang & I.J. Pickering

Selenium pollution control

Phytoremediation of selenium-contaminated soil and water

N. Terry

Microbe-assisted selenium phytoremediation and phytomanagement of natural seleniferous areas

M. Yasin, M. Faisal, M. Yasin, A.F. El Mehdawi & E.A.H. Pilon-Smits

Phytoremediation of selenium contaminated soils: strategies and limitations

K.S. Dhillon & S.K. Dhillon

Enhanced selenium removal and lipid production from wastewater by microalgae with low-energy ion implantation

Z. Wu, M. Li, M. Zhu & L. Qiu

Simultaneous production of biofuels and treatment of Se-laden wastewater using duckweed

Z. Wu, M. Li, L. Qiu & M. Zhu

Publications by Members

(Citations submitted by members for the time period of
July 2014 to August 2015)

2014

Abdur, R., Gerlits, O. O., Gan, J., Jiang, J., Salon, J., Kovalevsky, A. Y. & Huang, Z. (2014). Novel complex MAD phasing and RNase H structural insights using selenium oligonucleotides. *Acta Crystallographica Section D: Biological Crystallography*, 70(2), 354-361.

Alifar, N., Zaharah, A. R., Ishak, C. F., & Awang, Y. (2014). Effects of applied selenium on rice root parameters. *Asian Journal of Plant Sciences*, 13(4-8), 190.

Alifar, N., Zaharah, A. R., Ishak, C. F., Awang, Y., & Khayambashi, B. (2014). Determination of physical and chemical soil parameters on selenium adsorption, desorption by rice growing soil. *Asian Journal of Plant Sciences*, 13(4-8), 147.

Alifar, N., Zaharah, A. R., Ishak, C. F., Awang, Y., & Khayambashi, B. (2014). Selenium enrichment of paddy rice grains in Malaysia. *Asian Journal of Crop Science*, 6(4), 345.

Bhatia, P., Prakash, R., & Prakash, N. T. (2014). Enhanced antioxidant properties as a function of selenium uptake by edible mushrooms cultivated on selenium-accumulated waste post-harvest wheat and paddy residues. *International Journal of Recycling of Organic Waste in Agriculture*, 3(4), 127-132.

Blazina, T., Sun, Y., Voegelin, A., Lenz, M., Berg, M., & Winkel, L. H. (2014). Terrestrial selenium distribution in China is potentially linked to monsoonal climate. *Nature Communications*, 5, DOI:10.1038/ncomms5717

Dammeyer, P., Hellberg, V., Wallin, I., Laurell, G., Shoshan, M., Ehrsson, H., Arnér, E., & Kirkegaard, M. (2014). Cisplatin and oxaliplatin are toxic to cochlear outer hair cells and both target thioredoxin reductase in organ of Corti cultures. *Acta Oto-Laryngologica*, 134(5), 448-454.

Du, X., Qiu, S., Wang, Z., Wang, R., Wang, C., Tian, J., & Liu, Q. (2014). Direct interaction between selenoprotein P and tubulin. *International Journal of Molecular Sciences*, 15(6), 10199-10214.

Du, X., Zheng, Y., Wang, Z., Chen, Y., Zhou, R., Song, G., Ni, J., & Liu, Q. (2014). Inhibitory act of selenoprotein P on Cu⁺/Cu²⁺-induced tau aggregation and neurotoxicity. *Inorganic Chemistry*, 53(20), 11221-11230.

Ghalib, A. K., Yasin, M., & Faisal, M. (2014). Characterization and Metal Detoxification potential of moderately thermophilic bacillus cereus from geothermal springs of Himalaya. *Brazilian Archives of Biology and Technology*, 57(4), 554-560.

Kang, M., Bardelli, F., Charlet, L., Géhin, A., Shchukarev, A., Chen, F. & Liu, C. (2014). Redox reaction of aqueous selenite with As-rich pyrite from Jiguanshan ore mine (China): Reaction products and pathway. *Applied Geochemistry*, 47, 130-140.

Kumar, P. V., Singh, B. G., Maiti, N., Iwaoka, M., & Priyadarsini, K. I. (2014). Binding of a cyclic organoselenium compound with gold nanoparticles (GNP) and its effect on electron transfer properties. *Journal of Colloid and Interface Science*, 436, 179-185.

Kurokawa, S., Eriksson, S., Rose, K. L., Wu, S., Motley, A. K., Hill, S., & Burk, R. F. (2014). Sepp1 UF forms are N-terminal selenoprotein P truncations that have peroxidase activity when coupled with thioredoxin reductase-1. *Free Radical Biology and Medicine*, 69, 67-76.

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