

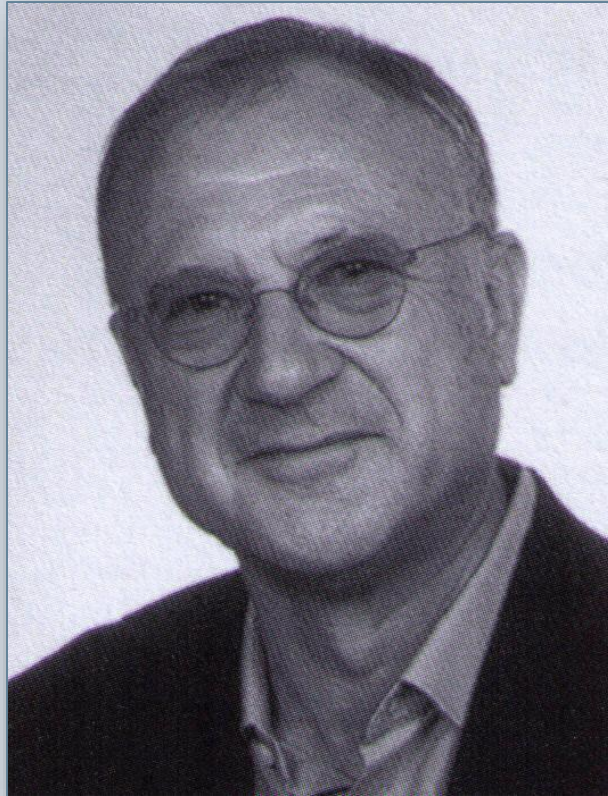
Transformative and Forward Looking Ideas of Rainer Gross

Chapter 1: Urban Nutrition

Chapter 2: Alternate-Day MNs Supplementation

NOEL W. SOLOMONS, MD
CeSSIAM, GUATEMALA CITY

Rainer Gross: 1947-2006



Rainer Gross had a Contrarian Vision

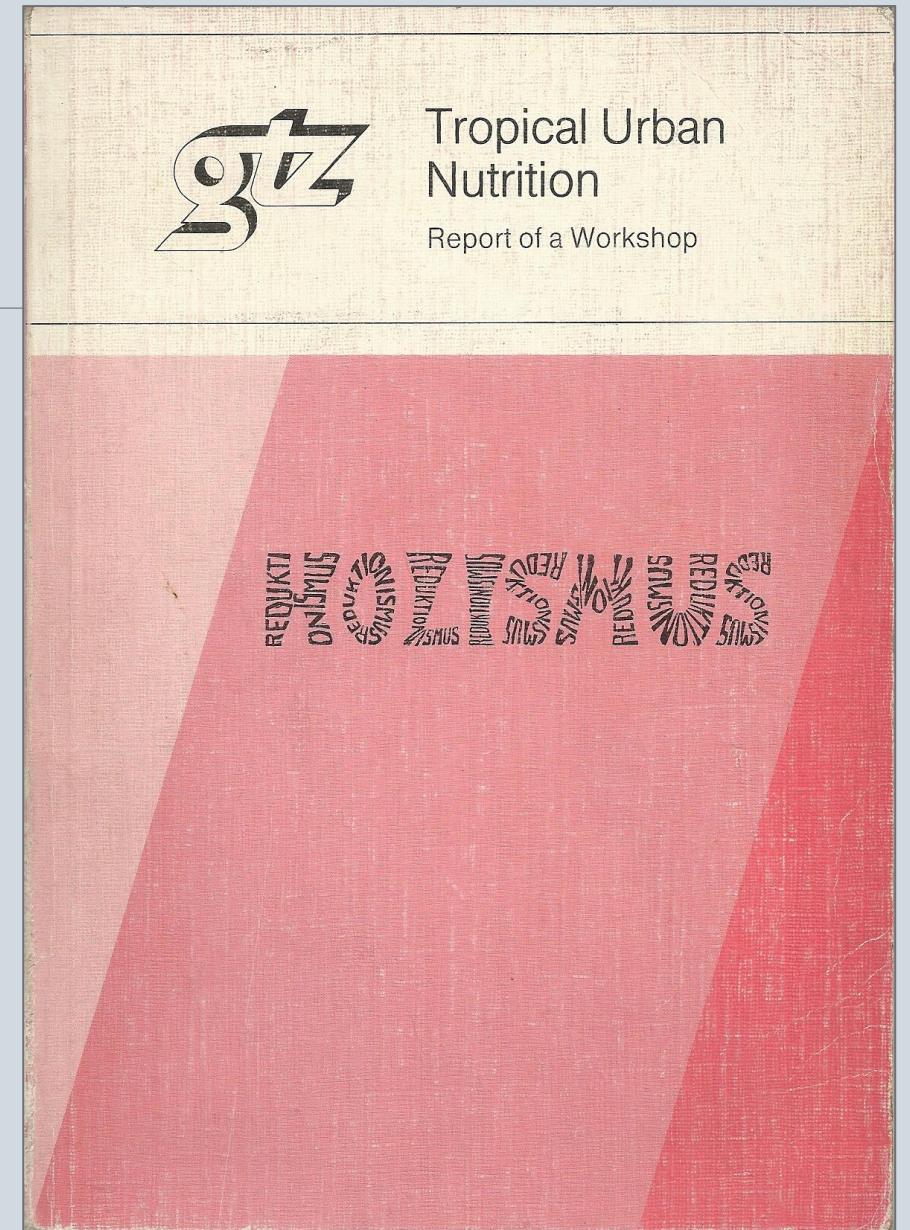
- He looked at Peru and did not see Machu Picchu and the Andean Highlands . . . but rather the ***Pueblos Jovenes*** of Greater Lima

- He looked at Brazil and did not see the junglas of the Amazonas . . . but rather the ***Favelas*** of Rio

We were missing the (absence of) Trees for the Forest

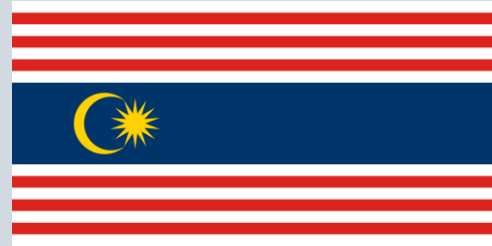


Royal Brighton ICN 1985



Conference Series on Urban Nutrition on three Continents

Kuala Lumpur, Malaysia 1991



Mexico City, Mexico 1992



Cotonou, Benin

1994



Principles of Urban Nutrition

- Contamination
 - Sedentarism
 - Obesity
 - Chronic diseases
-
- Household dual burden

Rainer Gross and Urban Nutrition Synthesis

- Solomons NW, **Gross R.** Urban nutrition in developing countries. Nutr Rev. 1995 Apr;53(4 Pt 1):90-5.
- **Gross R.** Dynamics of urbanization and nutrition: a new dimension of the "Fourth World". Nutrition. 1997;13:149-51.

Rainer Gross and Urban Nutrition Scholarship

- **Gross R**, de Lima FD, de Freitas CJ, Gross U. The relationships between selected anthropometric and socio-economic data in schoolchildren from different social strata in Rio de Janeiro, Brazil. *Rev Saude Publica*. 1990;24:11-19.
- Droomers M, **Gross R**, Schultink W, Sastroamidjojo S. High socioeconomic class preschool children from Jakarta, Indonesia are taller and heavier than NCHS reference population. *Eur J Clin Nutr*. 1995;49:740-744.

Rainer Gross and Urban Nutrition Scholarship

- Wasito E, Pritasari, Susilowati D, Iswarawanti DN, Schultink W, **Gross R**. Temporary stability of urban food and nutrition security: the East Jakarta study. *Asia Pac J Clin Nutr*. 2001;10 Suppl:S29-33.
- Hop LT, **Gross R**, Giay T, Schultink W, Thuan BT, Sastroamidjojo S. Longitudinal observation of growth of Vietnamese children in Hanoi, Vietnam from birth to 10 years of age. *Eur J Clin Nutr*. 1997;51:164-171.

Urban into the future . . .

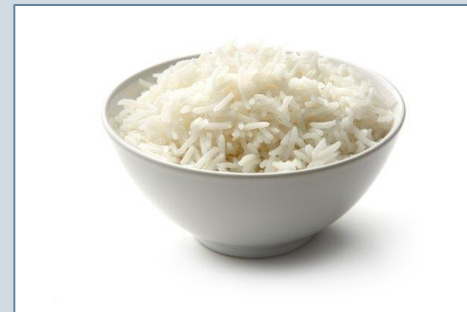
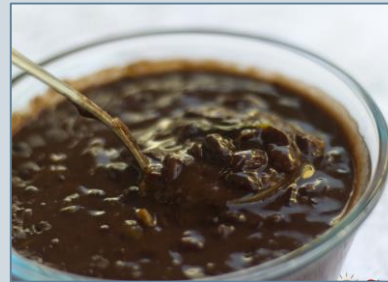
Since 1984 half of the world's population has become urban.

Overweight/obesity now equals undernutrition as a worldwide public health problem.

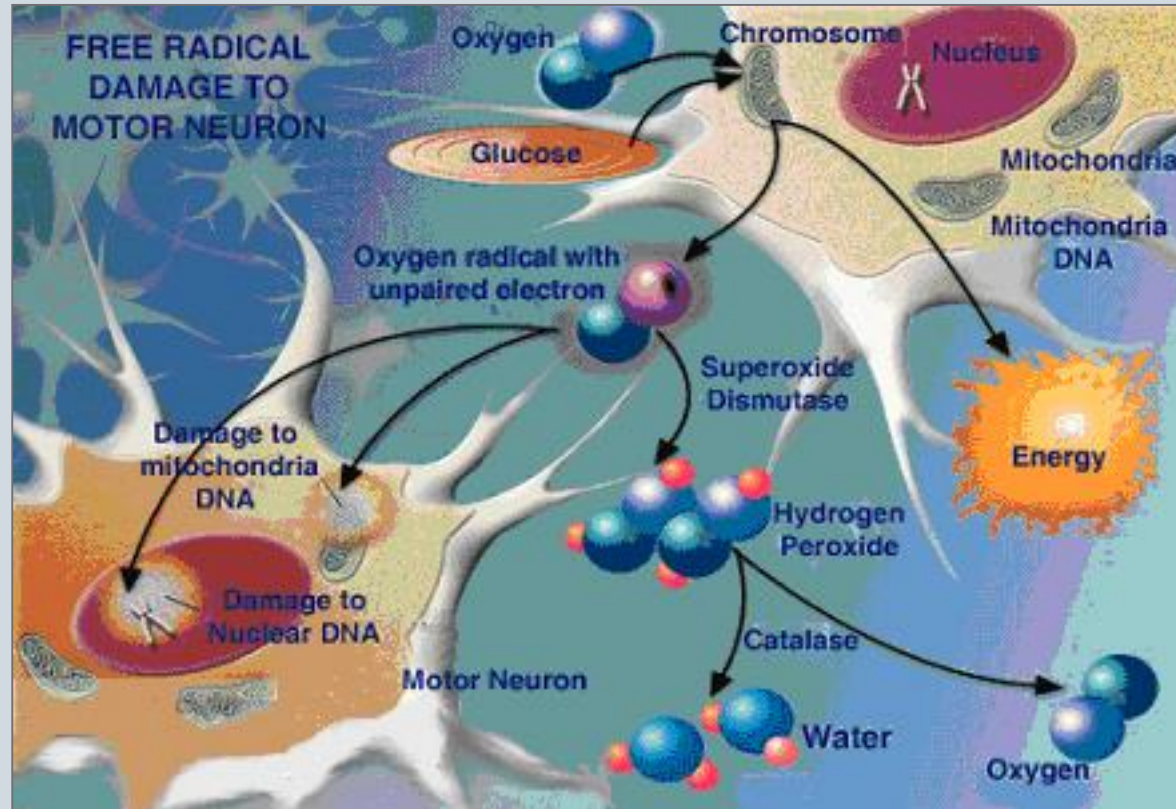
Rainer Gross had a Contrarian Vision

- He felt that one should have enough of all essential micronutrients.
- But he also felt that one could have too much of a good thing . . . especially not of iron.

Micronutrient Deficiencies do not Exist in Isolation



Rainer believed iron supplementation could be harmful



Alternate-Day Supplementation was efficacious

- Ridwan E, Schultink W, Dillon D, **Gross R**. Effects of weekly iron supplementation on pregnant Indonesian women are similar to those of daily supplementation. *Am J Clin Nutr.* 1996;63:884-890.
- Palupi L, Schultink W, Achadi E, **Gross R**. Effective community intervention to improve hemoglobin status in preschoolers receiving once-weekly iron supplementation. *Am J Clin Nutr.* 1997;65:1057-1061.

Alternate-day iron was efficacious with multiple micronutrients



- Smuts CM, Benadé AJ, Berger J, Hop le T, López de Romaña G, Untoro J, Karyadi E, Erhardt J, **Gross R**; International Research on Infant Supplementation Study Group. IRIS. I: a FOODlet-based multiple-micronutrient intervention in 6- to 12-month-old infants at high risk of micronutrient malnutrition in four contrasting populations: description of a multicenter field trial. *Food Nutr Bull.* 2003;24(3 Suppl):S27-33.
- Smuts CM, Lombard CJ, Benadé AJ, Dhansay MA, Berger J, Hop le T, López de Romaña G, Untoro J, Karyadi E, Erhardt J, **Gross R**; International Research on Infant Supplementation (IRIS) Study Group. Efficacy of a foodlet-based multiple micronutrient supplement for preventing growth faltering, anemia, and micronutrient deficiency of infants: the four country IRIS trial pooled data analysis. *J Nutr.* 2005;135:631S-638S.

International Research in Infant Supplementation



Wijaya-Erhardt M, Erhardt JG, Untoro J, Karyadi E, Wibowo L, **Gross R**. Effect of daily or weekly multiple-micronutrient and iron foodlike tablets on body iron stores of Indonesian infants aged 6-12 mo: a double-blind, randomized, placebo-controlled trial. *Am J Clin Nutr*. 2007;86:1680-1686.

The
World
needs
more

CONTRARIANS
of the likes of
RAINER GROSS!!

