An Apple a Day Keeps the Doctor Away.
• Cornell University Communications
• An apple peel a day might keep cancer at bay
• Rui Hai Liu, Cornell associate professor of food science, analyzed the peel from 230 pounds of red delicious apples
• Cornell researchers have identified a dozen compounds -- triterpenoids -- in apple peel that either inhibit or kill cancer cells in laboratory cultures. Three of the compounds have not previously been described in the literature.
"We found that several compounds have potent anti-proliferative activities against human liver, colon and breast cancer cells and may be partially responsible for the anti-cancer activities of whole apples," says Rui Hai Liu, Cornell associate professor of food science.
Liu is affiliated with Cornell's Institute of Comparative and Environmental Toxicology and is senior author of the study, which is online and published this month in the Journal of Agricultural and Food Chemistry.
• APPLES
• MINERALS
• CANCER PREVENTION

• NOVEMBER 2008
• MEXICO
Newton discovers gravity and apple sauce in the same day.
• DR. RICH OLREE - 28 YEARS IN PRACTICE

• EMINERAL.INFO

• 989-742-4242    PO BOX 550 HILLMAN MI 49746

• ‘MINERALS FOR THE GENE CODE’
• ‘MINERALS FOR TUMOR SUPPRESSING GENES’
• ‘MINERALS FOR ACUPUNCTURE MERIDIANS’
• ‘AMINO ACIDS FOR ACUPUNCTURE MERIDAINS’
The Cottage
The Fish
• NOAA Records 5th Largest Ozone Hole in September
• November 12, 2008
Minerals for the Genetic Code

AN EXPOSITION & ANALYSIS OF THE DR. OLREE STANDARD GENETIC PERIODIC CHART & THE PHYSICAL, CHEMICAL & BIOLOGICAL CONNECTION.

Charles Walters
• Grand Unified Theory
• 1.) Gravity
• 2.) Magnetism
• 3.) Weak Electric fields
• 4.) Strong Electric fields
THE ROLE OF SELENIUM IN NUTRITION

Gerald F. Combs, Jr.
Stephanie B. Combs
The Russell Periodic Table of the Elements

The other of the two charts given to the world by Walter Russell in 1926.
Periodicity is a characteristic of all phenomena of nature.
SAY, ADAM, HOW MANY CALORIES IN AN APPLE?
1  C-1 thru C-5
2  C-5 Thru T-2
3  T-2 thru T-6
4  T-6 thru T-10
5  T-10 thru L-2
6  L-2 thru S-1
7  S-1 thru S-5
8  Coccyx 1 thru 4
LEFT HAND
Coloured Areas:
7 Major Chakras

Black Spots:
21 Minor Chakras
Nogier Drawing of Somatotopic Ear
Olree
Biological Periodic Chart
In 100 Mhz
Olree
Biological
Amino Acid
Chart
# STANDARD GENETIC CODE

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>C</th>
<th>A</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>TTT Phe (F)</td>
<td>TCT Ser (S)</td>
<td>TAT Tyr (Y)</td>
<td>TGT Cys (C)</td>
</tr>
<tr>
<td></td>
<td>TTC</td>
<td>TCC</td>
<td>TAC</td>
<td>TGC</td>
</tr>
<tr>
<td></td>
<td>TTA Leu (L)</td>
<td>TCA</td>
<td>TAA Ter</td>
<td>TGA Ter</td>
</tr>
<tr>
<td></td>
<td>TTG</td>
<td>TCG</td>
<td>TAG Ter</td>
<td>TGG Trp (W)</td>
</tr>
<tr>
<td>C</td>
<td>CTT Leu (L)</td>
<td>CCT Pro (P)</td>
<td>CAT His (H)</td>
<td>CGT Arg (R)</td>
</tr>
<tr>
<td></td>
<td>CTC</td>
<td>CCC</td>
<td>CAC</td>
<td>CGC</td>
</tr>
<tr>
<td></td>
<td>CTA</td>
<td>CCA</td>
<td>CAA Gln (Q)</td>
<td>CGA</td>
</tr>
<tr>
<td></td>
<td>CTG</td>
<td>CCG</td>
<td>CAG</td>
<td>CGG</td>
</tr>
<tr>
<td>A</td>
<td>ATT Ile (I)</td>
<td>ACT Thr (T)</td>
<td>AAT Asn (N)</td>
<td>AGT Ser (S)</td>
</tr>
<tr>
<td></td>
<td>ATC</td>
<td>ACC</td>
<td>AAC</td>
<td>AGC</td>
</tr>
<tr>
<td></td>
<td>ATA</td>
<td>ACA</td>
<td>AAA Lys (K)</td>
<td>AGA Arg (R)</td>
</tr>
<tr>
<td></td>
<td>ATG Met (M)</td>
<td>ACG</td>
<td>AAG</td>
<td>AGG</td>
</tr>
<tr>
<td>G</td>
<td>GTT Val (V)</td>
<td>GCT Ala (A)</td>
<td>GAT Asp (D)</td>
<td>GGT Gly (G)</td>
</tr>
<tr>
<td></td>
<td>GTC</td>
<td>GCC</td>
<td>GAC</td>
<td>GGC</td>
</tr>
<tr>
<td></td>
<td>GTA</td>
<td>GCA</td>
<td>GAA Glu (E)</td>
<td>GGA</td>
</tr>
<tr>
<td></td>
<td>GTG</td>
<td>GCG</td>
<td>GAG</td>
<td>GGG</td>
</tr>
</tbody>
</table>
OPEN STANDARD
GENETIC PERIODIC
CHART
• The Genetic Code
• We need several thousands of different proteins in our body. It is the genetic material, the DNA, in our cells that provides the information needed to produce all these proteins. The genetic information is stored in molecules represented by three-letter words called codons. These words need to be translated to the "protein language" of 20 words, each representing an amino acid.
The “Central Dogma of Biology” is as follows: DNA to RNA to a Protein
• agccgggtgaa gcacctgatt gcctaaacca ctcgccccct tcctccagca ctcaaaagatt aaccttagct ccttccaaagg gtgcgtgggg gaaaattcgc ctcgagggac tgggtacatg catatattta aaggggctcc caatgtagt ccacgggcctc acgggcagaa gaacacgcca agagacggaa ctggcctctta tcctatgcga ggtccccctta agaacctcgc cctgtgtgccc ttctccccctcc cgctcctggg cggaggccgga agcgggaagtg gcgagagaagt gtctggctctcc aagatggccgg cccgcctggcc gtctggctccg tcgtctcccc ggagccagactc gttgggtgctt ttctggtcgt ctcaagctca acaggacccct gggggggctgt tggcaccctcc gcgggggggc aggagctgct taagttggcg gacctcaaag tgggacaata tattttgtaa aatccaaaaa taaatgacgc tacgcaagaa ccagtaact gtacaaacta cacagctcact ttttctgttt ttccagcacc caacataact tgtaaggatt ccagtggcga tgggacaacat ttactcgga acgaagttgg ttttttcaag cccatatctt gccgaatatg ataatggctat tcctcaaaag tggcagtgcgc attgtctctt tttcctggat ggttgggagc agatcgattt taccttggat accctgcttt gggttttgta aagttttgca ctggaggggg tttggaatt gggagcctaa ttgattttctc tcttatattc atgcagatttg tgggacctcc agatgggaagtttacatta tagattacta tgggaccaga cttaacaagac tgggtattac taatgaaaca tttgaaaaaa cgcaattata ttccataata tttttttaaa gaaacagatt tggaccttct tggataggata agagaacttc tagtgtatgg atattaaagat ttctcttttt cattcatata ccattttatg agttctgtat aatttttttt gttttttgtt ttggttagg ttaaatattttgtag atatgagat ttatattatatag attgtgagat ttatttaata ggacttcttt tgggagcctgt ataatagttgt ttctcgggacct tctgtctcta tgaagagatag cttattactc ttgataactt cttaatctta caaaggcaag ttgccacttg tcattttttgt ttctgaaaaa taaaagtata aacgttacac
3. Caractère d’une cellule mère de gamète femelle
Ribosome – Connects Amino Acids
• Biological Needs
• 1. Amino Acids which build proteins
• 2. Minerals which provide vibrational energy, three dimensional shape and polarity
• 3. Vitamins which activate and facilitate mineral activity
• 4. Sugars which provide energy
• 5. Oils which lubrication and insulation
• 6. Misc. – everything else
Alanine
Arginine
Asparagine
Cysteine
Glutamine
Glutathione
Glycine
Histidine
Isoleucine
Leucine
Lysine
Methionine
phenylalanine
Proline
Serine
Threonine
Tryptophan
Tyrosine
Valine
• Just a half-century ago very little was known about the genetic factors that contribute to human disease.
• In 1953, James Watson and Francis Crick described the double helix structure of deoxyribonucleic acid (DNA), the chemical compound that contains the genetic instructions for building, running and maintaining living organisms.
Methods to determine the order, or sequence, of the chemical letters in DNA were developed in the mid 1970s.
According to a new study presented at the American Association for Cancer Research Third Annual International Conference on Frontiers in Cancer Prevention Research meeting here, a class of polyphenols called procyanidins found in apples was shown to significantly reduce the number of precancerous lesions in the colons of laboratory animals. Other work showed that these polyphenols exerted their anti-cancer influence by altering specific cell signaling pathways leading to apoptosis, or programmed cell death.
• Prostate Cancer (Mayo Clinic, US) : quercetin, a nutrient found most abundantly in apples, inhibits the growth of human prostate cancer cells
Colon and Liver Cancer (Cornell University, US): phytonutrients in apples inhibit the growth of colon and liver cancer cells
• Lung Cancer (University of Hawaii + Finnish National Public Health Institute + National Cancer Institute, (US)) : the consumption of the flavonoid quercetin reduces the risk of lung cancer
• Asthma (King's College, UK): eating at least two apples per week reduces the risk of developing asthma by 22-32%
Lung Function (University of Nottingham + St George's Hospital, UK): apple eaters have better lung function and a lower risk of respiratory disease
COPD (University of Groningen): eating apples may reduce smokers' risk of developing chronic obstructive pulmonary disease (COPD)
• LDL Oxidation (University of California Davis, US): eating apples reduces the damage caused by the 'bad' type of cholesterol and thus protect against heart disease.
Coronary Mortality (Finland): high consumption of flavonoids from apples reduces the risk for coronary mortality.
Thrombotic Stoke (Finland) : high consumption of apples reduces the risk for thrombotic stroke
Chronic Disease Risk (Finland): components found in apples reduce the risk of many chronic diseases, including heart disease, cancer, stroke, type 2 diabetes and asthma.
Fiber: apples are a source of soluble and insoluble fiber. Soluble fiber such as pectin aids in digestion and helps to prevent cholesterol build-up in the lining of blood vessel walls.
Boron: apples contain boron, an essential trace element that helps harden the bones.
Cancer: breast cancer incidence tends to be lower with higher quercetin intakes.
Potassium: apples contain potassium, which helps control blood pressure and protects against stroke.
Condensed Tannins: condensed tannins are found in apples. Tannins have anti-adhesion properties that may help prevent periodontal or gum disease because they inhibit some bacteria from bonding to each other and producing dental plaque. Tannins may also help prevent urinary tract infections and reduce the risk of heart disease.
Apple seeds along with apricot kernels, peach and cherry pits, and the stems, leaves and roots of some rose family (Rosaceae) species, are a natural source of the cyanide-containing compound known as amygdalin.
Eating apples while pregnant may give new meaning to an apple a day keeping the doctor away. Compelling new research has concluded that mothers who eat apples during pregnancy may protect their children from developing asthma later in life. The study was published in Thorax online.
• Postharvest Diseases, Disorders, and Mineral Content of Organically Grown Apples
Organically grown apples had higher phosphorus (P) and potassium (K) concentrations and lower nitrogen (N) concentrations than conventionally grown apples. Production method did not influence calcium (Ca) or magnesium (Mg) concentrations, and there were no significant differences in apple yield per tree or apple weight loss during storage. Many storage disorders that develop in apples are associated with low calcium and phosphorus concentrations, as well as with high nitrogen concentrations. Therefore, the lower nitrogen and higher phosphorus concentrations in organically grown apples could possibly be advantageous in reducing the incidence of storage disorders.
• It is a good idea to eat apples with their skin. Almost half of the vitamin C content is just underneath the skin. Eating the skin also increases insoluble fiber content. Most of an apple's fragrance cells are also concentrated in the skin and as they ripen, the skin cells develop more aroma and flavor.
• **Nutritional Value of Apples, raw, with skin**

**Vitamins**
- Vitamin A (IU)
- Vitamin A (microg retinol activity equivalents)
- Vitamin B6 (mg)
- Vitamin B12 (microg)
- Folic Acid (microg)
- Niacin (mg)
- Riboflavin (mg)
- Thiamin (mg)
- Vitamin C (mg)
- Vitamin E (mg)
- Vitamin K (mg)
• Minerals
• Calcium (mg)
• Copper (mg)
• Iron (mg)
• Manganese (mg)
• Magnesium (mg)
• Phosphorus (mg)
• Potassium (mg)
• Selenium (microg)
• Sodium (mg)
• Zinc (mg)
• Other
• Protein
• Fibre
• Water
• Carbohydrate
• Energy
• Lipids
• Cholesterol
Jan Oszmianski, leading a team at the Agricultural University of Wroclaw, Poland, compared clear and cloudy varieties of apple juice, and found that cloudy juice contains four times the concentration of polyphenols. Polyphenols are widely reported to have anti-cancer activity. The research published this month in the SCI's Journal of the Science of Food and Agriculture.
Apples, apple juice shown to prevent early atherosclerosis

Vienna, VA (May 2, 2008) - A new study shows that apples and apple juice are playing the same health league as the often-touted purple grapes and grape juice. The study was published in the April 2008 issue of Molecular Nutrition and Food Research.
`The Apple Report', a comprehensive review of scientific research published over the past 10 years, has found that apples are one of the only foods identified to reduce the risk of heart disease and certain cancers - two of the biggest causes of death in Australia.
The antioxidant, trans-resveratrol, is one of the components of red wine that is thought to combat heart disease and cancer by neutralizing oxidizing agents including free radicals.

The substance has previously been found to kill fungi on fruit and is known to fight diseases caused by yeasts and moulds that wilt many fruits, vegetables and cereals.
Modern agriculture is plagued by fruit losses due to microbial infections and natural aging during storage. Moreover, synthetic pesticides pose health risks to humans and can cause negative environmental effects.
Researchers wondered whether trans-resveratrol’s antioxidant properties would help to conserve fruit and found that a coating of the substance protected fruit from Botrytis cinerea, a fungus that causes fruit such as apples.

Apples dipped in a trans-resveratrol solution had a greatly increased shelf life, from two weeks to three months.
• Resveratrol and Boron team up in the human body to release and put to work a gene expression called P-53. P-53 causes cancer cells to die. Boron is found in the apple seeds. Some boron effects were discussed in a prior meeting today.
• Resveratrol is a phytoalexin that occurs in many plants when they're attacked by certain fungi or bacteria.
• Resveratrol is found in a number of plants, including apples.
<table>
<thead>
<tr>
<th>First Letter</th>
<th>Second Letter</th>
<th>Third Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T</strong></td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>G</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>G</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>C</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>C</strong></td>
<td>C</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>T</strong></td>
<td>C</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>G</td>
<td>G</td>
</tr>
</tbody>
</table>

### Protein Codons

- **Phe** (Phenylalanine) : TTT, TTC, TTA, TTG
- **Ser** (Serine) : TCT, TCC, TCA, TCG
- **Tyr** (Tyrosine) : TAT, TAC
- **Stop** (Stop) : TAA, TAG, TGA
- **Cys** (Cysteine) : TGT, TGC
- **Stop** (Stop) : TAA, TAG, TGA
- **Trp** (Tryptophan) : TGG
- **Leu** (Leucine) : CTT, CTC, CTA, CTG
- **Pro** (Proline) : CCT, CCC, CCA, CCG
- **His** (Histidine) : CAT, CAC
- **Gln** (Glutamine) : CAG
- **Arg** (Arginine) : CGT, CGC, CGA, CGG
- **Ile** (Isoleucine) : ATT, ATC, ATA, ATG
- **Thr** (Threonine) : ACT, ACC, ACA, ACG
- **Asn** (Asparagine) : AAT, AAC
- **Lys** (Lysine) : AAA, AAG
- **Met** (Methionine) : ATG
- **Val** (Valine) : GTT, GTC, GTA, GTG
- **Ala** (Alanine) : GCT, GCC, GCA, GCG
- **Asp** (Aspartic Acid) : GAT, GAC
- **Glu** (Glutamic Acid) : GAA, GAG
- **Gly** (Glycine) : GGT, GGC, GGA, GGG
• In 1990, the National Institutes of Health (NIH) and the Department of Energy joined with international partners in a quest to sequence all 3 billion letters, or base pairs, in the human genome, which is the complete set of DNA in the human body. This concerted, public effort was the Human Genome Project.
All data generated by the Human Genome Project were made freely and rapidly available on the Internet, serving to accelerate the pace of medical discovery around the globe.
The Human Genome project spurred a revolution in biotechnology innovation around the world and played a key role in making the U.S. the global leader in the new biotechnology sector.
• In April 2003, researchers successfully completed the Human Genome Project, under budget and more than two years ahead of schedule.
• The Human Genome Project (HGP)
• Resveratrol
• The Human Genome Project (HGP) was one of the great feats of exploration in history - an inward voyage of discovery rather than an outward exploration of the planet or the cosmos; an international research effort to sequence and map all of the genes - together known as the genome
• Completed in April 2003, the HGP gave us the ability to, for the first time, to read nature's complete genetic blueprint for building a human being.
Fifty Years Ago
• Just a half-century ago very little was known about the genetic factors that contribute to human disease.
In 1953, James Watson and Francis Crick described the double helix structure of deoxyribonucleic acid (DNA), the chemical compound that contains the genetic instructions for building, running and maintaining living organisms.
• Methods to determine the order, or sequence, of the chemical letters in DNA were developed in the mid 1970s.
• In 1990, the National Institutes of Health (NIH) and the Department of Energy joined with international partners in a quest to sequence all 3 billion letters, or base pairs, in the human genome, which is the complete set of DNA in the human body. This concerted, public effort was the Human Genome Project.
• All data generated by the Human Genome Project were made freely and rapidly available on the Internet, serving to accelerate the pace of medical discovery around the globe.
• The Human Genome project spurred a revolution in biotechnology innovation around the world and played a key role in making the U.S. the global leader in the new biotechnology sector.
• In April 2003, researchers successfully completed the Human Genome Project, under budget and more than two years ahead of schedule.
Today
•The Human Genome Project has already fueled the discovery of more than 1,800 disease genes.
As a result of the Human Genome Project, today’s researchers can find a gene suspected of causing an inherited disease in a matter of days, rather than the years it took before the genome sequence was in hand.
• There are now more than 1,000 genetic tests for human conditions. These tests enable patients to learn their genetic risks for disease and also help healthcare professionals diagnose disease.
At least 350 biotechnology-based products resulting from the Human Genome Project are currently in clinical trials.
• Having the complete sequence of the human genome is similar to having all the pages of a manual needed to make the human body. The challenge now is to determine how to read the contents of these pages and understand how all of these many, complex parts work together in human health and disease.
• Individualized analysis based on each person’s genome will lead to a powerful form of preventive, personalized, and preemptive medicine. By tailoring recommendations to each person’s DNA, health care professionals will be able to work with individuals to focus efforts on the specific strategies.
• The HGP has revealed that there are probably about 20,500 human genes. The completed human sequence can now identify their locations. This ultimate product of the HGP has given the world a resource of detailed information about the structure, organization and function of the complete set of human genes. This information can be thought of as the basic set of inheritable "instructions" for the development and function of a human being.
# STANDARD GENETIC CODE

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>C</th>
<th>A</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>TTT Phe (F)</td>
<td>TCT Ser (S)</td>
<td>TAT Tyr (Y)</td>
<td>TGT Cys (C)</td>
</tr>
<tr>
<td></td>
<td>TTC &quot;</td>
<td>TCC &quot;</td>
<td>TAC</td>
<td>TGC</td>
</tr>
<tr>
<td></td>
<td>TTA Leu (L)</td>
<td>TCA &quot;</td>
<td>TAA Ter</td>
<td>TGA Ter</td>
</tr>
<tr>
<td></td>
<td>TTG &quot;</td>
<td>TCG &quot;</td>
<td>TAG Ter</td>
<td>TGG Trp (W)</td>
</tr>
<tr>
<td>C</td>
<td>CTT Leu (L)</td>
<td>CCT Pro (P)</td>
<td>CAT His (H)</td>
<td>CGT Arg (R)</td>
</tr>
<tr>
<td></td>
<td>CTC &quot;</td>
<td>CCC &quot;</td>
<td>CAC</td>
<td>CGC</td>
</tr>
<tr>
<td></td>
<td>CTA &quot;</td>
<td>CCA &quot;</td>
<td>CAA Gln (Q)</td>
<td>CGA</td>
</tr>
<tr>
<td></td>
<td>CTG &quot;</td>
<td>CCG &quot;</td>
<td>CAG</td>
<td>CGG</td>
</tr>
<tr>
<td>A</td>
<td>ATT Ile (I)</td>
<td>ACT Thr (T)</td>
<td>AAT Asn (N)</td>
<td>AGT Ser (S)</td>
</tr>
<tr>
<td></td>
<td>ATC &quot;</td>
<td>ACC &quot;</td>
<td>AAC</td>
<td>AGC</td>
</tr>
<tr>
<td></td>
<td>ATA &quot;</td>
<td>ACA &quot;</td>
<td>AAA Lys (K)</td>
<td>AGA Arg (R)</td>
</tr>
<tr>
<td></td>
<td>ATG Met (M)</td>
<td>ACG &quot;</td>
<td>AAG</td>
<td>AGG</td>
</tr>
<tr>
<td>G</td>
<td>GAT Val (V)</td>
<td>GCT Ala (A)</td>
<td>GAT Asp (D)</td>
<td>GGT Gly (G)</td>
</tr>
<tr>
<td></td>
<td>GTC &quot;</td>
<td>GCC &quot;</td>
<td>GAC</td>
<td>GGC</td>
</tr>
<tr>
<td></td>
<td>GTA &quot;</td>
<td>GCA &quot;</td>
<td>GAA Glu (E)</td>
<td>GGA</td>
</tr>
<tr>
<td></td>
<td>GTG &quot;</td>
<td>GCG &quot;</td>
<td>GAG</td>
<td>GGG</td>
</tr>
</tbody>
</table>
• The Genetic Code

• We need several thousands of different proteins in our body. It is the genetic material, the DNA, in our cells that provides the information needed to produce all these proteins. The genetic information is stored in molecules represented by three-letter words called codons. These words need to be translated to the "protein language" of 20 words, each representing an amino acid.
The “Central Dogma of Biology” is as follows: DNA to RNA to a Protein
agcgggtgaa gcacctgatt gcctaaacca ctcttcccct tcctccagca ctcaaagatt aaccttagct ccttcaagg gttcgtgggg gaaaattcgc ctgaggggac tgggtacatg catatrrtta aagggttcctt ccattgtgatt ccacgcggctc acgggcagaa gaacacgcca agagacggaa ctgggcctcta tcctatgcga gttcccttta agaaccctgc ccttggtgcc ttttccctcc cgctcctggg cggaggccgaa agcggagaagt ggcgaaaagt gttcgtctcc aagatggccgg cccgcctggcc gtctggctcg tctgtccggg aggccgtgac gcagcagactc gtctgggtcc ttgtgggtcgt ctctgtcact acagggcct tggggggctgt tgcccacctcc gccggggggcc aggagtctgt taagtgcgag gacctcaag tgggaacaata tatatttttgta gatccaaaaa taatgacgc tacgcaagga ccagttactg gtacaaact actcagctcat gtctctgttt ttccagcacc caacataact ttgtaaggatt ccagtggcga tgaacacccattactggga acgaagttgg ttttttcaag cccatatcttt ggcgaaatgt aatgggctattctcataag ggagtggtcc accttattttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttt
• Biological Needs
• 1. Amino Acids which build proteins
• 2. Minerals which provide vibrational energy, three dimensional shape and polarity
• 3. Vitamins which activate and facilitate mineral activity
• 4. Sugars which provide energy
• 5. Oils which lubrication and insulation
• 6. Misc. – everything else
• Minerals that have a -1 oxidation state or aka electron Valance

• 1. Flourine

• 2. Chlorine

• 3. Bromine

• 4. Iodine

• 5. Astatine (radioactive)
- Minerals that have a -2 oxidation state or aka electron Valance
- 1. Oxygen
- 2. Sulfur
- 3. Selenium
- 4. Tellurium
- 5. Polonium 210 (radioactive)
• Minerals that have a -3 oxidation state or aka electron Valance
• 1. Nitrogen
• 2. Phosphorus
• 3. Arsenic
• 4. Antimony
• 5. Bismuth (radioactive)
Minerals that have a -4+ oxidation state or aka electron Valance

1. Carbon
2. Silicon
3. Cobalt
4. Rhodium
5. Lutetium
• Minerals that have a +3 oxidation state or aka electron Valance
• 1. Boron
• 2. Aluminum
• 3. Scandium
• 4. Yttrium
• 5. Lanthanum
• 6. Actinium (radioactive)
Minerals that have a +2 oxidation state or AKA electron Valance

1. Beryllium
2. Magnesium
3. Calcium
4. Strontium
5. Barium
6. Radium (radioactive)
• Minerals that have a +1 oxidation state or aka electron Valance
• 1. Lithium
• 2. Sodium
• 3. Potassium
• 4. Rubidium
• 5. Cesium
• 6. Astatine (radioactive)
Minerals that have a -0- oxidation state or aka electron Valance

1. Helium
2. Neon
3. Argon
4. Krypton
5. Xenon
6. Radon (radioactive)
Iodine

Should be the twenty second most abundant mineral in the body
Controls all -1 valances or oxidation states
Heaviest most dense mineral of all -1 valances
Strongest electro negativity minerals due to gravity
Displaced by Flourine and Bromine in the absence of Iodine
Number one body loss is sweat
Found in all cell of the human body
Can be absorbed thru the lungs and skin
Current RDA levels is .1 mg (drastically low)
Dr. Brownstein and other feel 10mg to 12 mg a day is needed
Bromine drives down iodine levels
Critical for brain development and constant function
Best taken with out potassium in a organic form
Selenium

Should be the 25th most abundant mineral in the body. It controls all -2 valances or oxidation states. Selenomethionine is the only form of organic Se. It is stored in the thyroid gland, testicles, and female breast. 24 genes encode just for selenium. It is critical for brain function. Over ½ of the country is Se deficient in soil content – all land east of the Mississippi is without Selenium. It is critical for animal health and human health. The thyroid will not function without selenium (T-4 to T-3 conversion). It is number one mineral needed for HIV patients.
Sodium Selenate \( (\text{Na}_2\text{SeO}_3) \)

#1 source of \( \text{Na}_2\text{SeO}_3 \) is China

China has the lowest levels in the world

Keshan disease, named after Keshan County, Heilongjiang Province, China where the disease was first discovered in 1935

China provides Sodium Selenate for all citizens

Responsible for a 40% increase in Type 2 diabetic's

Only a 16% conversion to Selenomethionine

Found in 95% of all multivitamins sold in America

Number one livestock feed source

Sodium Selenate is converted to organic selenium in the presents of Folic acid, B-12 and Methionine
• Other form of Se-2 in the man made food chain
  Selenocysteine,
  Se-methyl-selenocysteine
  Selenocystathionine,
  Selnotaurine

• 9/25/2007 - Selenium supplements may reduce the risk of heart disease by inhibiting the oxidation of LDL (bad) cholesterol, suggests a study from Italy.

• Writing in the journal Nutrition, Metabolism and Cardiovascular Diseases the Italian researchers report that healthy subjects taking a daily selenium supplement did not experience significant increases in oxidatively modified LDL, compared to a two per cent increase observed prior to supplementation.

• Such results could favorably reduce the risk of heart disease as oxidative modification of LDL has been reported to be a major part of the pathogenesis of atherosclerosis, and subsequently cardiovascular disease.
Purpling of these apple leaves reflects a deficiency of phosphorus in the soil.
Phosphorus

Should be the 6th most abundant mineral in the body

Phosphorus is a MAIN component in ATP (adenosine triphosphate)

Eighty to eighty five percent of all the phosphorus in your body is in your bones and teeth in the form of calcium phosphate

1 1/2 - 2 pounds of phosphorus in your body helps to keep your bones and teeth strong

Phosphorus is vital to collagen production and bone is 3/4 collagen

Tendons, ligaments, cartilage, skin, and eyes, are composed greatly of collagen.

Phospholipids keep the blood smooth

RDA for phosphorus 1200 mg until 24 and from then on 800 mg a day
**Silicon +4**

Organic silicon is bonded with carbon thru a microbe
Silicon is essential for the proper functioning of nerve cells and tissues
Synthesis of vitamin B1 or thiamine in the human body
Helps controls the transmission of nerve impulses
Contributes greatly to the strength and integrity of bones everywhere in the body
Essential for the growth of hair, nails, and teeth,
Called the 'beauty mineral'
It makes the eyes bright and protects the skin from becoming flabby
Carbon +4
Is the second most abundant mineral in the body
Principal mineral of DNA
Life revolves around carbon
Biochemistry is the study of carbon
6 carbons strong together is vitamin C
Carbon = Nitrogen and Cobalt is vitamin B-12
Boron

Boron regulates the body's use of calcium, phosphorus, and magnesium.

Experiments at Rutgers University discovered that the main task of this mineral was to control cell growth.

Boron is now thought to work in conjunction with other nutrients and hormones, especially calcium, magnesium, phosphorus, vitamin D, and estrogen, to promote bone health.

Boron helps prevent joint ailments such as arthritis—researchers have tied low soil and water levels to high rates of arthritis.

Studies suggest that a lack of boron diminishes immune function.

Boron helps to enhance thinking and memory, wound healing, and blood sugar regulation.

3 mg a day stops urinary magnesium loss.
Beryllium
Magnesium
Calcium
Strontium
Barium

The primary minerals that have a +2 valance are listed above. This is the most complicated valance of all minerals.

Cobalt is the center of the vitamin B-12. Cobalt is considered to be the link between metal and nonmetal. It is responsible to bring into the body the following minerals that have a +2 valance: TITANIUM, VANADIUM, CHROMIUM, MANGANESE, IRON, NICKEL, COPPER, ZINC, GALLIUM, GERMANIUM.
• +2
• Magnesium, Calcium and Strontium are the primary minerals for the valance +2 to build proteins
• Calcium is the 5th most abundant mineral in the human body with 99% tied up in the bone structure
• Magnesium is the center of the basis of life on earth – Chlorophyll - Sunlight to matter conversion. If you take out the magnesium out of chlorophyll and replace it with iron you have hemoglobin.
• Magnesium is the primary controller of Calcium, Sodium, Potassium and Strontium.
• Magnesium must be present in the small intestine to absorb Calcium and Strontium
• 99% of magnesium is in the cell not the bloodstream
• High calcium + low magnesium = kidney stones
• Excess calcium runs the magnesium out of the body
• Magnesium loss is the number one minerals loss that I see in my practice
• Soda pop with phosphoric acid is the main cause along with just plain dehydration
• Dehydration is the number one cause of type 2 diabetics
Magnesium loss symptoms:

- Feet problems
  - 1. Swell
  - 2. Smell
  - 3. Hurt in the AM
  - 4. Cramp

- Calve cramps
- Morning AM vague low back stiffness – must lay on side to keep sleeping - better to get out of bed and walk around to feel better
- Water retention – Water pills – Huge loss of Mg+
• Heavy clotty periods – Toxic shock
• Mood swings – period related
• Headaches – Migraines
• Heart palpations, Mitral valve prolapse
• Startle reflex
• Anger – creates blowup situations
• Bloating of intestines – lack of bowel movements
• Abnormal reflex in the dream state
• Constant jerking in the sleep state
• Dizziness – loss of opposite valance (-2 selenium)
There are only 6 minerals that have the -1 oxidation state. They are all very important in their own way. They are all in the alkaline position with lithium being the least and Cesium being the most alkaline mineral.

Alkalize or Die!

The gene MDM2 is activated by cesium/iodine
- Helium
- Neon
- Argon
- Krypton
- Radon (radioactive)

- You breath noble gases with each breath
- Noble gases have vibration activities
- Radon is the number 2 cause of lung cancer
- Link between thought and genetic sequences
- All genetic sequences have noble gases embedded in them
- No research is currently being done with noble gases
- Open mineral vibration shart
• Hydrogen - Links the third and fourth level of mineral magnetic energy
• Basis for MRI
• MRI’s show only h2o content
• Gadolinium contrast medium

MRI contrast dye containing gadolinium has been linked to the cause of a disease called Nephrogenic Systemic Fibrosis (NSF) or Nephrogenic Fibrosing Dermotherapy (NFD), a serious condition that starts in the skin of the arms and legs and spreads to other parts of the body. People who undergo an MRI—especially those with kidney disease—in which this contrast dye is used are particularly at risk for developing this disease.
• Carbon – Links the fourth and fifth level of mineral magnetic energy
• Basis for organic chemistry
• Center of the DNA molecule
• It is the 4th most abundant element in the universe by mass after hydrogen, helium and oxygen. It is ubiquitous in all known life forms, and in the human body it is the second most abundant element by mass (about 18%) after oxygen. Carbon is the sixth most abundant element by weight in the Earth's crust.
- Cobalt – Links the fifths and sixth level of mineral magnetic energy
- Most of the Earth's cobalt is in its core. Cobalt is of relatively low abundance in the Earth's crust and in natural waters, from which it is precipitated as the highly insoluble cobalt sulfide. Although the average level of cobalt in soils is 8 ppm, there are soils with as little as 0.1 ppm and others with as much as 70 ppm. In the marine environment cobalt is needed by blue-green algae and other nitrogen fixing organisms.
• Cobalt is needed to bring the following minerals into the human body.

  5. Titanium  
  4. Vanadium  
  3. Chromium  
  2. Manganese  
  1. Iron  

*COBALT*  
  1. Nickel  
  2. Copper  
  3. Zinc  
  4. Gallium  
  5. Germanium
• Minerals that under the control of Cobalt are not involved in the formation of a protein but rather they are used at sites of protein activation.

• Most minerals that are in this area are being utilized in the +2 oxidation state.

• The +2 states are profoundly influenced by the opposite valance -2 and the primary -2 oxidation state is selenium, second by sulfur and sulfur containing amino acids and vitamins.
• Rhodium – links the sixth and seventh levels of minerals magnetic energy
• Most metal (85%) goes into catalytic converters for cars that is mined
• Supplemental rhodium increased the hematocrits and liver oxidative ability of both nickel-deficient and -supplemented chicks, and increased total liver lipids, liver lipid phosphorus, and liver cholesterol in the nickel-deficient chicks.
• Is used in a non toxic chemotherapeutic compound
• How Poly MVA Works

• Dr Garnett (founder) is transferring an electron to the DNA complex. Thus the compound is described as a DNA Reductase. However there is evidence that it can repair genes damaged by cancer. Once inside the cell, Poly-MVA interferes with the particular energy metabolism (anaerobic) of the cancer cell by changing the tumor's cell properties. No harm occurs in normal cells.
• Poly-MVA is a blend of Palladium bound to alpha-lipoic acid, Vitamins B1, B2 and B12, amino acids formyl-methionine and acetyl cystiene and trace amounts of Molybdinum, Rhodium, and Ruthenium.  

See Olree Biological chart
Now, a new study provides direct evidence that biological clocks can influence the activity of a large number of different genes in an ingenious fashion, simply by causing chromosomes to coil more tightly during the day and to relax at night.

‘Bioclocks work by controlling chromosome coiling’ by Ximing Qin, Yao Xu, Mark Woelfle and Carl Johnson.
• Lanthanum +3 (63)
• Second most called for mineral upon conversion of genome fasta sequence to minerals
• Lanthanum Carbonate – Used for end stage kidney failure to lower (-3) phosphorus levels
• Must be in soil for cucumbers to grow
• The lanthanum compound is a lanthanum salt selected from lanthanum carbonate, lanthanum carbonate hydrate, lanthanum hydroxy carbonate, or lanthanum chloride.
• Most other form are considered heavy metals
Cesium +1 (62)

- Cesium has been proven to get into cancer cells, when other nutrients cannot. The cesium:
  1) Makes the cancer cells alkaline
  2) Limits the intake of glucose into the cell
  3) Neutralizes the lactic
  4) Stops the fermentation process, which is a second affect of limiting the glucose.
  5) Allows for P53 to be released from MDM2

A practitioner of cesium chloride was Hans A. Nieper, M.D., (1928-1998), who practiced in Hannover, Germany. Many celebrities and executives from America went to Germany to be treated by Dr. Nieper, including one President of the United States.
Barium +2 (61)

1) Is the minerals that makes the aids virus so bad

2) Is used in GI studies due to it’s ability to absorb radiation

3) Levels appear to be going up in the atmosphere in California and Alaska
The patient drinks a contrast medium containing barium sulfate (BS). This contrast medium appears white on x-rays, and shows the outline of the internal lining of the bowel. X-ray images are taken as the contrast moves through the intestine, commonly at 0 minutes, 20 minutes, 40 minutes and 90 minutes. This enables the radiologist to assess the bowel as it becomes visible. The test is completed when the Barium is visualized in the terminal ileum and Caecum, which marks the beginning of the large bowel. This is one of the most common places for pathology of the bowel to be found.
1) Xenon is Greek for stranger. It was discovered in 1898 and found to be the only noble gas to be anaesthetic under normobaric conditions. Xenon is extremely scarce with an average room containing only 4ml.

2) First used in 1951 by Cullen on an 81yr old man having an orchidectomy.
• Specific effects on the body
• Respiratory
• Central depression causes a decrease in respiratory rate with a compensatory increase in tidal volume and can progress to apnea
• Higher density and viscosity (compared with oxygen, air and N₂O) theoretically makes xenon more likely to increase airway resistance. Clinically the airway resistance is slightly less than that seen with N₂O and it can be used safely in lung disease
• Diffusion hypoxia is very mild as the blood/gas partition of Nitrogen (0.014) is only 10 times less than that of Xenon (0.14) as opposed to the almost 40 times less than Nitrous Oxide (0.47)
• Cardiovascular
• No inhibitory effects on cardiac ion channels i.e. calcium, sodium and inward potassium channels.
• No significant change in contractility, blood pressure and systemic resistance.
• Some reports of decrease in heart rate with variability in rhythm.
• No sensitisation of the myocardium to adrenaline
• May attenuate the myocardial depressant effects of isoflurane.
• In an animal study, xenon anaesthesia produced the highest regional blood flow to brain, liver, kidneys and GIT. The control groups were 1% halothane in Nitrous oxide and thiopentone with fentanyl.
• Central nervous system
• Xenon increases cerebral blood flow, increases intracranial pressure and decreases cerebral perfusion pressure in acute head injury patients. This is not associated with cerebral oligaemia or ischaemia.
• This increase in cerebral blood flow is reversed by mild hyperventilation
• At present it is not recommended for neurosurgery.
Lack of iodine is widespread in the United States today. For many years iodine was added to bread in generous quantities which prevented iodine deficiency. Each slice of bread contained 150 mcg. of iodine filling the whole day’s RDA of iodine. In 1960 the average diet consumed about 1 mg. of iodine daily with bakery products accounting for about 75% of the total. This quantity of iodine was enough to decrease the thyroid gland’s ability to absorb radioactive iodine and it was also sufficient to prevent excess release of thyroid hormone thus preventing many cases of hyperthyroidism (Grave’s Disease).
Iodine and bromine appear similar to the thyroid gland and bromine easily binds to the thyroid gland’s receptors for iodine. Bromine, however, is of no value to the thyroid gland unlike iodine and it inhibits the activity of iodine in the thyroid gland. Bromine also can cause impaired thinking and memory, drowsiness, dizziness and irritability. This substitution of bromine for iodine has resulted in nearly universal deficiency of iodine in the American populace. Iodine therapy helps the body eliminate fluoride, bromine, lead, cadmium, arsenic, aluminum and mercury.
Among the problems caused by iodine deficiency are:

1) Under activity of the thyroid gland produces fatigue. Iodine deficiency leads to abnormal pituitary-adrenal function. The adrenal gland provides energy and stamina.
2) When iodine no longer binds to thyroid cell membranes enzymes called peroxidases are able to damage these membranes and produce autoimmune diseases such as Hashimoto’s thyroiditis and Hyperthyroidism (Graves Disease). Researcher Dr. Guy Abraham has observed several cases of thyroiditis and hyperthyroidism that have been corrected by the simple replacement of iodine.
3) For more than 100 years high doses of iodine have been known to benefit both underactivity (hypothyroidism) of the thyroid gland and overactivity of the thyroid gland (hyperthyroidism). Iodine therapy allows the sluggish thyroid gland to resume normal production of thyroid hormone leading to resolution of hypothyroidism. Provision of iodine stops the peroxidase injury to the thyroid membranes in hyperthyroidism which permits hyperthyroidism to resolve. Thus thyroid surgery for hyperthyroidism is no longer necessary.
4) Several human organs need iodine but can not absorb it until blood iodine levels reach high values (stomach, salivary glands). Most persons exhibit impaired production of stomach acid as they age. This impaired capability to produce adequate stomach acid may be a result of iodine deficiency as iodine promotes stomach acidity.
• Resolution of cysts Iodine therapy resolves nearly every case of breast cysts. This treatment also can heal ovarian cysts and works well on skin cysts when rubbed over the cyst.
• Iodine is found in large quantities in the brain and the ciliary body of the eye relating to ‘Dry Eye Syndrome’.
Lipoprotein (a) This dangerous substance is quite important as it produces plaques in arteries because it is very sticky and collects platelets, calcium and fibrin from the blood circulating inside our arteries. Excessive clotting and vascular disease resulting from high levels of lipoprotein (a) can be reversed by iodine treatment.
Tellurium -2 (58)

1) Te accumulates in the thyroid gland and influences the zinc thyroid level.
2) Te treatment alone and in combination with Selenium or Zinc decreased the iodine thyroid concentration to 65-70% of the control value.
3) Tellurium causes dose-dependent coordinate down-regulation of myelin gene expression.
4) Data offers explanations for the established toxicity of tellurium via disruption of selenoprotein function.
5) A little bit goes a long way
• Chronic exposure to small amounts of tellurium found in garlic might reduce endogenous cholesterol production through inhibition of hepatic squalene epoxidase and so reduce cholesterol levels. Tellurium may also contribute to the characteristic odour of garlic since the most obvious clinical sign of tellurium poisoning is a garlic-like odour.
Antimony -3 (57)

1) Alternate mRNA start point
2) Found from the Arctic to the Antarctic circle due to its release from plastic bottled drinking water. It is used in the production of plastic.
• The natural sulfide of antimony, stibnite, was known and used in Biblical times as medicine and as a cosmetic. Antimony has been used for the treatment of schistosomiasis. Antimony attaches itself to sulfur atoms in certain enzymes which are used by both the parasite and human host. Small doses can kill the parasite without causing damage to the patient.

• Antimony has a nourishing or conditioning effect on keratinized tissues, at least in animals. Tartar emetic is another antimony preparation which is used as an anti-schistosomal drug. Treatments chiefly involving antimony have been called antimonials.
1) Prior discussion

2) Greatest toxic source is of health risk is emitted from automotive catalytic converters

3) We conclude that the increased survival of the tumor-bearing mice was due at least in part to the inhibition of DNA synthesis with a consequent reduction of cell division and tumor growth on rhodium.
1) Yttrium based proteins are obtained from the probiotics

2) Bifidobacteria species are the main source
   a) Bifidobacterium longum - #1 probiotic from mothers milk
      b) Bifidobacterium infantis
      c) Bifidobacterium bifidium
      d) Bifidobacterium animalis = Bifidus Regularis made by Danon
3) One of three STOP signals used to create a protein
4) Yttrium compounds will be lowered due to aluminum intake
5) Yttrium compounds will be increased due to Boron intake
6) Many yttrium compound needs are in the brain
7) When yttrium is not present Selenocysteine will take yttrium’s place – Selenocysteine is considered to be the 22 amino acid

Show table of bifo bacteria
1) Needed to make bone and stimulate osteoblast

2) The data support the hypothesis that strontium citrate increases the proliferative/alkaline phosphatase activity of human osteoblastic cells from alveolar bone. The results validate previous research that has been done with other forms of strontium in clinical studies and rodent calvarial cells and indicates that strontium is a promising agent in treating systemic bone disorders
The human gene Cbfa1 is essential for osteoblastic differentiation and bone formation. The early detection of Cbfa1 in strontium-inducing hMSCs indicates that strontium play an enhancing role in osteoblastic differentiation and bone formation. Cbfa1 expression is also demonstrated in hMSCs cultured in osteogenic medium. L-ascorbic acid and L-glutamine are the essential components in osteogenic medium. We found that strontium was another essential factor that could further enhance Cbfa1 expression in hMSCs.
• National Osteoporosis Foundation statistics indicate that “osteoporosis causes more than 1.5 million fractures annually: 700,000 vertebral, 300,000 hip, 250,000 wrist and 300,000 fractures at other sites”
• An average of 24% of hip fracture patients aged 50 and over dies in the year following their fracture.
• As our population ages in huge numbers, finding a safe and effective treatment for osteoporosis is more important than ever before. Dr. Susan Brown, director of the Osteoporosis Education Project (OEP) in East Syracuse, N.Y., says “Our bone crisis worsens each year, despite intensive public health and disease treatment efforts”.
• So, exactly what is strontium? It is element number 38 on the periodic table of elements. It is in the same group of elements as calcium and magnesium. That means it has similar chemical properties as these better known elements.
• Rubidium -1 (54)
• Is attached to Methionine (START) on the Standard Olree Genetic Chart
• Rubidium, like sodium and potassium, is always in the +1 oxidation state. The human body tends to treat Rb⁺ ions as if they were potassium ions, and therefore concentrates rubidium in the body's electrolytic fluid. The ions are not particularly toxic, and are relatively quickly removed in the sweat and urine.
• Potentates lithium in the brain
• More alkaline than lithium, sodium and potassium
• Potassium, rubidium and cesium are the most alkaline elements that exist. In order from most alkaline they rank as cesium, rubidium and potassium, which are then followed by sodium and calcium.
• Rubidium is absorbed easily from the gut, about 90 percent. It is found generally throughout the body, with the least in the bones and teeth; it is not known to concentrate in any particular tissue. Excess rubidium is eliminated mainly in the urine.

• In studies with mice, rubidium has helped decrease tumor growth, by replacing potassium in cell transport mechanisms or by rubidium ions attaching to the cancer cell membranes. Rubidium has a tranquilizing or hypnotic effect in humans.
The rubidium depression link is believed to occur from the following: "it increases platelet GABA binding and in the presence of rubidium 5-HT accumulation the rate of synthesis of 5-HT in the brain is enhanced."
Krypton -0- (52)

1) Takes down superman

2) The concentration of krypton in earth's atmosphere is about 1 ppm.

3) Will not combine with just about everything

4) Will combing with fluorine
• Bromine -1 (51)

1) Lowers iodine levels in the body
2) Main ingredient in ‘BromoSeltzer’
3) Missing in the brains of Parkinson’s Disease (PD)
4) Main mineral in PD medication
5) Found in almost all Green and Red pops including sports drinks as ‘Bromated vegetable oil’
6) Is used to replace iodine in almost all mass produced breads – Bromated –
7) Used in hot tubs instead of chlorine
8) Excess amounts leads to gallbladder cancer, schizophrenia and suicide
1) Couch potato or bromine toxicity
2) Brominated Flame Retardants
3) Can get your bed made without retardants
4) #1 minerals found in sea water
Human Absorption - Polybrominated Diphenyl Ethers

Human absorption of lower-brominated congeners of PBDEs, specifically in adipose tissue, has been well documented. Studies have revealed the presence of DBDE in Swedish peregrine falcon eggs and freshwater fish, showing that DBDE is bioavailable. Of even more concern for humans is the discovery of DBDE in 30% of breast milk samples in Texas. These studies suggest that not only is DBDE transported from the environment into living organisms, but that it remains...
• Neurodevelopment of fetuses
• Endocrine disruption: thyroid function
• Carcinogenicity
• Reproduction
• Immune Suppression
• Teratogenicity or birth defects
• Dioxin-like effects
Selenium -2 (50) other oxidation states (+4, +6)

1) P53 is a non functioning gene without selenium

2) Selenomethionine is the only organic form of selenium

3) All other form of selenium will stored until conversion to selenium is complete

4) Methionine can be ties up in homocysteine for this conversion to take place

5) Recent research indicates that Selenium is tied to type 2 diabetes (sodium selenite finally has a disease tied to selenium toxicity)
This map identifies areas of the United States and Canada where the soil has adequate (◯◯) or low (□□) levels of selenium. In other areas selenium levels vary widely.
Biological selenium cycle. Well-established pathways are indicated by solid lines, those needing further substantiation by dotted lines. Adapted from: Shrift (1964) and slightly modified according to the reports of Asher et al. (1977) and Sarathchandra & Watkinson (1981).
• Arsenic -3 (49)
• Arsenic contamination of groundwater has led to a massive epidemic of arsenic poisoning in Bangladesh and neighboring countries. It is estimated that approximately 57 million people are drinking groundwater with arsenic concentrations elevated above the World Health Organization's standard of 10 parts per billion. The arsenic in the groundwater is of natural origin, and is released from the sediment into the groundwater due to the anoxic conditions of the subsurface.
• Must be present in small amounts to create a boy
• Is removed and controlled by selenium and folic acid
• Is found in pine trees
• 5 or 6 pine needles put in boiling water for 20 minuets will do
• Is low in mothers who spontaneously abort at the end of the first trimester (usually a boy)
• High in the species of perch fish (playboy magazine)
• Children may encounter arsenic trioxide as a rodenticide or herbicide. Examine for both arsenic and cholinesterase-inhibitor exposure. Possible transdermal absorption from exposure to pressure-treated wood, now banned for use by the US EPA, has been reported.

• Adults may be exposed through work in a metal foundry, mining, glass production, or the semiconductor industry and tobacco.

• Arsenic has been found to contaminate such common items as wine, glues, and pigments.
• Cobalt +4- (48)

• The primary loss of B12 in the human body seems to be through bile excretion. Also failure of intrinsic factor or poor production of stomach acid (usually due to aging) can contribute to B12 deficiency.
• B12 is a vitamin required for blood formation and rapidly growing tissues. *Methylcobalamin* production requires cobalamin and is the cobalamin found in the central nervous system (CNS) and brain where it transports **methyl groups** (-CH3) to proteins in the **myelin**. It is for these reasons that B12 deficiency leads to anaemia (blood disorders include **macrocytos** and **pernicious anaemia**) and neurological disorders (Alzheimer's disease and suspected amalgam related disorders).
• The human body typically contains 5000-10000 µg of B12 distributed about equally between the liver, kidneys and nervous system

• Is the link between metal and non metal and is responsible for the following minerals absorption and utilization: TITANIUM, VANADIUM, CHROMIUM, MANGANESE, IRON, NICKEL, COPPER, ZINC, GALLIUM, GERMANIUM
• Vitamin B12 is produced exclusively by microorganisms
• Vegetarians are at greatest risk for low B12 levels
• Burning at the bottom of the feel is a good symptom that a person needs B12
• Scandium $+3$ (47)
• Is the $12^{\text{th}}$ most abundant mineral of the sun
• Is found in the adrenal medulla
• Transport of vitamin D3 from its sites of cutaneous synthesis into the circulation has been assumed to be via the plasma vitamin D binding protein (DBP).
• Light for the production needs to in the 290-320 nm range which scandium fits the bill
Vitamin D3 is produced photochemically in the skin from 7-dehydrocholesterol. The highest concentrations of 7-dehydrocholesterol are found in the epidermal layer of skin, specifically in the stratum basale and stratum spinosum. The production of pre-vitamin D3 is therefore greatest in these two layers, whereas production in the other layers is reduced.
• TANNING BOOTH- A BIG NO-NO!

• Recent Scandinavian Study

• A recent eight year study on more than 100,000 Scandinavian women found that frequent tanning-booth users (more than once a month) were 55% more likely to develop malignant melanoma!
Calcium +2 (46)

Types of calcium

1) Calcium carbonate is the most common and least expensive calcium supplement. It can be difficult to digest and causes gas in some people. Taking magnesium with it can help to prevent constipation. Calcium carbonate is 40% elemental calcium. 1000 mg will provide 400 mg of calcium. It is recommended to take this supplement with food to aid in absorption. In some calcium supplements based on calcium carbonate, vitamin D is added to aid in absorption. Vitamin D is needed for the absorption of calcium from the stomach and for the functioning of calcium in the body.
2) Calcium citrate is more easily absorbed (bioavailability is 2.5 times higher than calcium carbonate), easier to digest and less likely to cause constipation and gas than calcium carbonate. It also has a lower risk of contributing to the formation of kidney stones. Calcium citrate is about 21% elemental calcium. 1000 mg will provide 210 mg of calcium. It is more expensive than calcium carbonate and more of it must be taken to get the same amount of calcium.
3) Calcium phosphate costs more than calcium carbonate, but less than calcium citrate. It is easily absorbed and is less likely to cause constipation and gas than either. Calcium lactate and calcium aspartate are both more difficult to digest and are more expensive than calcium carbonate.
• 99% of calcium is found in the bones and teeth
• Vitamin D3 is more important than calcium in the calcium cycle
• Calcium is magnesium dependent for absorption from the small intestine
• Potassium +1 (45)

• Potassium is an essential mineral macronutrient in human nutrition; it is the major cation (positive ion) inside animal cells, and it is thus important in maintaining fluid and electrolyte balance in the body.

• Lost from the majority of diuretic medications along with magnesium and must be supplemented with magnesium

• To much or to little will cause in cardiac death

• Needs to sought after by iodine for control and not allowing potassium to settle in tissues (fibrocyctic)
Some people with kidney disease are advised to avoid large quantities of dietary potassium. End stage renal failure patients undergoing therapy by renal dialysis must observe strict dietary limits on potassium intake, since the kidneys control potassium excretion, and buildup of blood concentrations of potassium may trigger fatal cardiac arrhythmia. Use cesium in small quantities to lower potassium back to normal levels.
Although sodium is an important dietary factor in high blood pressure for some people, variations in the ratio of sodium and potassium will also affect blood pressure under certain circumstances. An increase in potassium intake appears to partly offset the adverse effect of sodium on blood pressure. If you are prone to high blood pressure it would be beneficial to decrease sodium intake and increase your dietary intake of potassium, by eating more foods that have low amounts of sodium and significant amounts of potassium, such as fruits and vegetables.
• Argon -0- (44)

• Argon is present in the Earth's atmosphere at slightly less than 1%, making it the most common noble gas on Earth. Its full outer shell makes argon stable and resistant to bonding with other elements.

• Although argon is non-toxic, it does not satisfy the body's need for oxygen and is a simple asphyxiant. People have suffocated by breathing argon by mistake.

• Used by heli – acr welders
Chlorine can be taken into the body by eating food, drinking water, or breathing air; small amounts could be absorbed through the skin. Gastrointestinal absorption from food or water is the principal source of internally deposited chlorine in the general population. Chlorine as chloride is an essential nutrient in the human diet and is necessary for healthy nervous and digestive systems. Chlorine is almost completely absorbed upon ingestion, moving quickly from the gastrointestinal tract into the bloodstream. The chlorine that enters the bloodstream after ingestion or inhalation is quickly distributed to all organs and tissues of the body. Chlorine is eliminated from the body with a biological half-life of 10 days.
Inhaling Chlorine By-Products When Showering Is a Major Threat . . .

Evidence clearly shows that contaminants like chloroform and trichloroethylene do serious harm when ingested or absorbed into the body. However, the major threat caused by these water pollutants is far more likely to be as air pollutants.

Hot showers can release these dissolved contaminants into the air. The lungs absorb these contaminants, including chlorine, trichloroethylene, chloroform, benzene. They pass from the lungs into the bloodstream.
Studies at the University of Pittsburgh found less chemical exposure from drinking chlorinated water than from showering or washing clothes in it. The study found that, on average, absorption through the skin accounted for 64% of water borne contaminants entering the body.

Besides penetration of contaminants through the skin, the contaminants can adversely affect the skin and hair. Chlorine bonds chemically with proteins in the hair, skin and scalp. As a result: (1) the hair can become rough and brittle and lose its color, (2) the skin can become dry and itchy, and (3) it can aggravate sensitive areas in the eyes, nose, throat and lungs.
Stomach acid, technically known as hydrochloric acid, is essential for proper functioning of the digestive system. It activates digestive enzymes from the pancreas that break down food into small particles for absorption. Low acidity may result in only partial digestion of foods, leading to gas, bloating, belching, diarrhea or constipation.
• Normal levels of stomach acid help to keep the digestive system free of bad bacteria and parasites. With low acidity and the presence of undigested food, bacteria are more likely to colonize the stomach or small intestine and interfere with the digestion and absorption of protein, fat and carbohydrates.

• Many vitamins and minerals require proper stomach acid in order to be properly absorbed, including calcium, iron, vitamin B12, and folic acid.
• Signs and Symptoms of Low Acidity
  Bloating, belching, and flatulence immediately after meals  -  Indigestion, diarrhea, or constipation  -  Soreness, burning or dryness of the mouth  -  Heartburn  -  Multiple food allergies  -  Feeling nauseous after taking supplements  -  Rectal itching  -  Weak, peeling and cracked fingernails  -  Redness or dilated blood vessels in the cheeks and nose  -  Adult acne  -  Hair loss in women  -  Iron deficiency  -  Undigested food in the stools  -  Chronic yeast infections  -  Low tolerance for dentures
• Sulfur -2 (42)
• 4th most abundant mineral of the human body
• Used as STOP codon in mRNA syntheses
• Most of the body's sulfur is found in the sulfur-containing amino acids: methionine, cystine, and cysteine.
• Vitamin B1, biotin, and pantothenic acid
• Sulfur is also available as various sulfates or sulfides
ACID RAIN

Sulfur is the main mineral of acid rain. The acid turns aluminum (+3) from a solid to a liquid. There aluminum is seeking out a -3 valance. The highest levels of -3 is phosphorus and this is found the nervous system. The best example is under arm deodorant aluminum based. The aluminum attaches to the phosphorus in the nerve which deadens the function. The end result is a sweat gland does not function. No moisture, decreased bacteria, decreased odor from dying bacteria.
• Acid rain lowers the iodine, boron and selenium levels, raises aluminum, and sulfur levels. Life underwater, like a crab, starves for oxygen because the nerve to the gills become paralyzed and cease to function. The aluminum works its way up the food chain just like mercury.
• Phosphorus -3 (41)
• Phosphorus is everywhere in life. It is the center of the crebs cycle.
• Phosphorus is caught in three stages in the crebs cycle. The first stage is adenine mono-phosphate. The second is adenine di-phosphate and the third is adenine tri-phosphate.
• This creates a cycle in which all cells in the body get energy through the mitochondria.
• Molecular Formula CH₃I
• CAS No. 74-88-4
• Applications
  • Medicines, soil disinfectant.
• Hazards
  • Gas generation: Methyl iodide fumes
• Toxicity
  • LD₅₀ oral-rat: 200 mg/kg or 50 mg/kg
  • TLV: 10 ppm air
  • Toxic, and cutaneously absorbed. When fumes are inhaled, the lung liver, kidney, and central nervous system are damaged, resulting in dizziness, sleepiness, nausea, diarrhea, speech disorder, ataxia, muscle convulsion, etc.
• Acute poisoning is caused at 100 ~ 500 ppm in air, and death at 6000 ~ 8600 ppm.
Aluminum, a common ingredient added to antiperspirants to stop skin sweating, linked to breast cancer, a study by British scientists found.

The researchers tested breast samples from 17 breast-cancer patients who had undergone mastectomies. The women who used antiperspirants had deposits of aluminum in their outer breast tissue. Concentrations of aluminum were higher in the tissue closest to the underarm than in the central breast.

Aluminum is not normally found in the human body, and the researchers believe the metal is being absorbed from antiperspirant sprays and roll-ons.
Shire Pharmaceuticals Group plc (NASDAQ: SHPGY, LSE: SHPL, TSE: SHQ CN) announces that long-term treatment with FOSRENOL® (lanthanum carbonate), a new non-calcium, non-aluminum phosphate binder, does not promote bone softening or cause harmful effects on bone, according to data presented today at the American Society of Nephrology (ASN) annual meeting in St. Louis, Mo.

Even with a low-phosphorus diet, most ESRD patients develop hyperphosphatemia (high phosphate levels in the blood). Without effective treatment, hyperphosphatemia may lead to renal osteodystrophy, a collection of bone diseases characterized by bone pain, brittle bones, skeletal deformities and fractures.

Since ESRD patients often have fragile bones, it is critical that phosphate binders not worsen bone status,
• +4 Carbon
• -3 Nitrogen
• -2 Oxygen
• -1 Flourine
• -0- Neon
• +1 Sodium
• +2 Magnesium
• +3 Aluminum
• +4 Silicone