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FROM THE EDITOR

The previous issue was very well received. All comments and opinions are appreciated, the general response to Caduceus has been very enthusiastic. Do not hesitate to bring to my attention whatever you may take issue with or find inappropriate to your taste. We have received submissions by members of our division and other members have promised future contributions, including regular features. We want to see more of that and particularly contributions that include other languages besides English and Spanish.

You may find that this issue came shortly after the last one. This is an attempt to catch up to a true quarterly pace wherein deadlines for submission and publication schedules can be met as promised.

This issue starts with the first part of an excellent review of the history of medicine by Maria Rodolsky, which is why our cover presents a mural titled History of Medicine by Conrad Albrizio. Articles by new and previous authors plus our regular features make up the rest of the story.

Once again, a reminder: we need short contributions as much as we do full length pieces.

Stay well,

Rafael

Instructions to Authors

Submissions for publications must be sent electronically in Word format. The deadline for submissions for the Summer issue of Caduceus is 15 July 2004.

Caduceus carefully reviews its content in order to eliminate any textual errors. Nevertheless, we apologize for any errors in grammar, punctuation, typography and the like which may inadvertently appear on our pages.

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ABOUT OUR COVER



The mural was executed in Italian marble by Conrad Albrazio for the June 1966 opening of the University of South Alabama Medical Center. The large central figure is Hippocrates, the father of Western medicine, receiving the oath; representing, in turn, the moral discipline of the "Hippocratic Oath" imposed on all doctors. Immediately to the left, is the figure of Aesculapius, one of the earliest known Greek physicians and a demi-god for those of his era, as he holds the single snake caduceus in his left hand, the current symbol of the medical profession. Above his head is the winged mask representing the "oracle" or voice of the gods. The figure of the famed Egyptian Imhotep (300B.C.) can be seen on the opposite side. He was an architect, scientist, and surgeon - the triangle and scalpel are symbolic of these professions. This triad of major figures is sustained in design and composition by two groups on either side. Shown at the lower right is the Greek physician Galen (circa 75A.D). examining a human skull. His findings and theories concerning animal and human anatomies were highly criticized due to prejudices and taboos towards the study of anatomy. (Please refer to the Book Review in this issue). By the 16th century, these prejudices had dissipated, and anatomical study was accomplished by an anatomist and a physician of Flemish descent named Vesalius. He is represented in the lower left corner. The upper part of the panel is devoted to symbolic representations of the human body, beginning with birth through life. The total design serves as a backdrop for the superimposed white line drawing of the surgeon preparing for an operation.

By Maria Rosdolsky

PART 1 - BRIEF REVIEW OF MEDICAL HISTORY

Diseases have existed as long as life has existed. Terms for diseases and injuries as well as their treatment have probably existed as long as language itself. Evidence of medical terms has existed since writing has existed. Medical terminology undergoes constant changes. New diseases have and will always be observed, and names for these diseases must be found. Classifications of diseases change, for example, due to the discovery of their etiologies or pathogeneses. New names are given to known symptoms to either make their description easier or to obtain a name of a syndrome for which treatment is available. In the era of advanced technology, new diagnostic and therapeutic procedures, and with them their names, continuously increase. On the other hand, many terms become obsolete and are phased out of the medical vocabulary if better names for diseases are found or if instruments or procedures are no longer used.

1.1. Ancient Medicine

Chinese medicine started to develop at least 5000 years ago. Very early, preventive medicine in the form of bodily hygiene and diet played an important role. As far back as 2000-3000 BC, the Chinese knew the principles of vaccination. They introduced crushed crusts from small pox pustules into the nostrils to prevent small pox. "Canon of Internal Medicine", the first written medical document, dates back to around 300 BC. Another famous document, "Pulse Classic", was written around 300 AD. The anatomy of the ancient Chinese was based on the 12 channels, which were imagined as structures within the human body. The physiology was based on two forces, yin and yang, which, they thought (and many Chinese still think), circulate in the 12 channels, and control the blood vessels and the pulse. To make a diagnosis, several questions were asked about symptoms and dreams, as well as about the senses of taste and smell. The most important part of the examination was taking the pulse. The pulse was taken with strong, medium, and weak pressure at different places, and the entire examination took about 3 hours. For treatment, the ancient Chinese used materia medica, moxibustion, and acupuncture. Materia medica consisted of herbal, animal, and mineral remedies. Around 1550 AD, the "Great Herbal" was written. The work was frequently

revised and reprinted, consists of 52 volumes, and is still in use. For moxibustion, a small cone of powdered leaves is applied to the skin, ignited and crushed into the forming blister. For acupuncture, long needles are inserted at the so-called acupoints to correct imbalances between yin and yang. The practice of acupuncture dates back as far as 2500 BC. Moxibustion and acupuncture are still used, and are becoming more and more common in the Western culture. [1, 2]

Egyptian and Mesopotamian medicine produced medical texts as early as 1800 BC. Babylonian texts appeared on tablets of baked bricks. They describe two types of healers, one working with drugs, potions, and bandages, the other one with incantations. Symptoms of diseases are well described in these texts. On one of these tablets, a left-sided epileptic seizure is described: "His hand, leg and trunk on the left side jerk like a slaughtered sheep. If at the time of possession his mind is awake, the demon can be driven out." Of the Egyptian medical papyri, we know that Egyptians had little knowledge of anatomy but some skills in surgery and in setting bones. [2,3]

Greek medicine was primarily influenced by Egyptian and Mesopotamian medicine.

The **Cult of Asklepios (Aesculapius** in Latin) preceded the well-known Hippocratic medicine and probably continued to exist during the era of Hippocratic medicine. Healing powers were attributed to Asklepios, a half-god and son of Apollo and a nymph. Sick people visited shrines and begged for help. They believed that Asklepios conveyed to them directly, in their dreams, or indirectly, in symbols, the means by which recovery may be attained. The principle of the Asklepios system was the belief that disease was caused by unknown supernatural forces, and that the cure had to come from the same sources. [3,7]

Hippocratic medicine was the first rational and scientific medicine. Hippocrates, who is called the Father of Medicine, was born in 460 BC on the island of Cos. He stated that diseases do not have divine causes and that they result in recovery or death. He advocated observation and physical examination. From what we know, he and the physicians of his time seemed to understand many

Continued from page 4

functions of the human body. The Hippocratic Corpus is a collection of 60 to 70 tracts, previously ascribed to Hippocrates, and now believed to be written by many different authors between 420 and 370 BC. It contains descriptions of diseases with treatments and prognoses, case reports, texts on ethics, and aphorisms. Hippocratic medicine, as described in the Corpus, was characterized by observation of symptoms, openness to ideas, and attempts to explain the causes of diseases. Explanations of health and disease were based on balance and imbalance, of the "powers" (hot and cold, sweet and sour), and of the humors of the body (yellow bile, blood, phlegm, and black bile). The imbalance was called "dyscrasia", the balance "eucrasia". "Crasia" means "mixture", "dys" means abnormal, and "eu" means "normal". These two terms are still used in medicine today with slightly different meanings (eucrasia: state of health; dyscrasia: disease or pathological condition). Here are a few of the famous aphorisms: "Life is short and art (= medicine) is long, opportunity is fleeting, experience delusive, judgment difficult" "Make a habit of two things - help or at least do not harm." (This statement appears, expressed in different ways, throughout the Corpus. It still is, or at least should be, valid today.) "Some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician." The latter observation is very important, and today's physicians should incorporate it into their approach to the patient. The most famous part of the Corpus is the Hippocratic Oath. In short, a physician must swear that he will treat, to his best knowledge and conscience, sick individuals of all social classes, and that he will keep secret everything he learns from the patient or observes by examination. [1,2,3,5]

Anatomical knowledge improved at the end of the 4th century BC. Aristotle and his followers were involved in zoological investigations, and Diocles wrote the first book on animal dissection. Around 280 BC, in Alexandria, Herophilus and Erasistratus, dissected human bodies and gave names to their parts. The term "duodenum", for example, meaning twelve fingerbreadths, goes back to Herophilus. Erasistratus dissected the brain and tried to establish its functions related to movements and sensations. This period of dissecting human bodies was brief, and Roman law forced anatomists to return to the study of animals. [3,5]

The next major period was the Greco-Roman period with **Galen**, born in 130 AD in the city of Pergamon in Asia minor. He wrote on philosophy, ethics, anatomy, physiology, and medicine. He introduced physicians to the anatomical concept of disease, and believed that detailed knowledge of the body's structure is the foundation for understanding diseases. The system developed by Galen was based on anatomy (investigated by dissections), physiology (investigated by experiments), and clinical observations of patients. Despite this scientific approach, hypothesis was as valid to him as facts. He included his assumptions in his writings without differentiation from "study results". He believed, for example, that the arteries were filled with pneuma, and blood was only carried in the veins. He thought of the circulatory system as a complicated system of irrigation to distribute nutrients to all parts of the body. Pneuma, he thought was converted into "psychic pneuma" when reaching the brain, and into "vegetative pneuma" when leaving the liver. Galen performed several brilliant experiments on animals. He discovered, for example, that urine was produced in the kidneys and not in the bladder, as previously thought, by tying the ureters and showing that urine never passed beyond the ligature. [3,5]

Throughout the **Dark and Middle Ages**, and well into the 16th century, Galen's work, consisting not only of his research but also his hypotheses, was taken as the main source for practicing medicine. When the Roman Empire declined and the Eastern Empire rose, scientific Greek texts were translated into Arabic. The text in translation did not, however, remain without new variations and interpretations. In the 11th and 12th century, these Arab texts were translated into Latin. In the 15th century, after the Turks conquered Constantinople, Greek scholars migrated to Italy and brought with them the ancient books and manuscripts, which were then directly translated into Latin. [3,5]

1.2 Reawakening of Medicine

Leonardo da Vinci (1452-1519) wanted to present humans and their movements as they are. He dissected bodies in a Florentine hospital and produced impressive drawings of bones, muscles, and organs. **Andreas Vesalius** (1514-1564), one of Leonardo's followers, was born in Brussels and is considered the founder of modern anatomy. He dissected bodies of executed criminals, and assembled, for the first time, a human skeleton after collecting the bones.

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Vesalius' most important work is *De Humani Corporis Fabrica* (On the Structure of the Human Body), where he described not only the human anatomy, but also the use of the body parts. Several artists helped him to make illustrations. This seven-volume work was a turning point in medicine, education, and the history of printed books. Although his original intent was to use classical Latin only, he used Greek terms as well. Some Greek terms were taken from Galen's works, and appear in today's anatomical nomenclature, although most anatomical terms used today are of Latin origin. Vesalius also introduced numbers into the anatomical nomenclature. He numbered bones, muscles, and nerves; some of them are still used, for example, the vertebrae and cranial nerves. Of the cerebral ventricles, the numbers for the third and fourth ventricles are still in use. The importance of Vesalius' nomenclature lies in the fact that he created a specific descriptive anatomical language that had not been used before. [1,4,6]

Vesalius' work inspired the study of organs, and his followers described the human anatomy in greater detail. For example, **William Harvey** (1578-1657), a British physician and anatomist, published, in 1628, *De Motu Cordis et Sanguinis in Animalibus* (Motion of the Heart and Blood in Animals), in which he describes the circulation and the heart as a pump. [1,4]

1.3 Modern Medicine

From the 17th century on, medicine became scientific and developed very quickly. The invention of the microscope opened doors for physiological research. **Marcello Malpighi** (1628-1694), an Italian anatomist, discovered the pathway of the blood through the arteries, capillaries, and veins, as well as the red blood cells, and the histological structure of other organs. The term "cell" was introduced by **Robert Hooke** (1635-1703) in 1665 in his book *Micrographia* (micro = small, graphia = description). The so-called iatrophysicists studied muscle behavior, glands, respiration, heart action, and believed that the laws of physics could be applied to the human body. Iatrochemists rejected the humoral theory and believed that all vital processes were chemical. In 1766, the Swiss polymath **Albrecht von Haller** (1708-1777) published *Elementa Physiologiae Corporis Humani* in which he stated that "irritability" (now known as contractility) was a property of muscle fibers, and "sensibility" a property of nerve fibers. **Robert Whytt** (1714-1766) of the Scottish School of "Animal Economy" (which was the term used for

Physiology), wrote *On the Vital and Other Involuntary Motions of Animals*, in which he described an unconscious principle residing in the brain and spinal cord. **William Cullen** (1710-1790), another Scottish physician, thought that life was a function of nervous power. He believed that the nervous system played an important role in the development of diseases, especially mental diseases. He created the term "neurosis" to describe nervous diseases. At this time, physicians and researchers made their first unsuccessful attempt to abandon Latin used as the only language in medical documents. [4]

In the 18th century, many diseases were described and their contagiousity discovered. Attempts were made to reduce smallpox outbreaks by so-called "variolation". Pus from pustules was inserted into scratches of unaffected people. While effective in many cases, it was often fatal. Cowpox vaccination, introduced in 1796 by the British physician **Edward Jenner** (1749-1823) was much safer and spread rapidly to South America and Asia. **Leopold Auenbrugger** (1722-1809), a Viennese physician, introduced percussion of the chest in 1761. He was the son of an innkeeper and was familiar with testing the fullness of barrels by striking them. Later, he transferred his experience to diagnose pulmonary diseases by different sounds on percussion. In 1761, Giovanni **Battista Morgagni** (1682-1771) published *De Sedibus et Causis Morborum* (On the Sites and Causes of Disease), based on about 700 autopsies. This work was later translated into English and German. In general, 18th century physicians, made diagnoses by using their five senses: "feel the pulse, sniff for gangrene, taste the urine, listen for breathing irregularities, and look at the color of the skin and the eyes". [4]

The 19th century produced an enormous number of discoveries, and with these discoveries, a significant growth of medical terminology. In this context, I will only mention a few names and events that had significant influences on further developments and medicine as we know it today. In the 19th century, medicine and medical education became more systematic and more scientific. In 1816, the French physician **René-Théophile-Hyacinthe Laënnec** (1781-1826) invented the stethoscope (stethos = chest, scope = observe, examine). In the description of his invention, he mentioned that age and sex of a patient with heart disease did not allow "direct application of the ear to the chest". Therefore, he rolled a piece of paper into a tube, and was surprised to hear the beating of the heart "with

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much greater distinctness". Later, he used a wooden cylinder. His work *Traité de l'Auscultation médiate* includes clinical and pathological descriptions of many diseases including tuberculosis. **Rudolf Virchow** (1821-1902), a German pathologist, discovered that the cell is the basic unit of disease, as well as the basic unit of health and life itself. "Omnis cellula e cellula" (all cells from cells), he wrote in his most famous work, *Cellularpathologie*. His major discoveries were white blood cells (leukocytes) and leukemia, as well as thrombosis and embolism, whose terms he introduced. His principles were "alterations in structure provide clues to alterations in function"; and "the key to understanding and treating sickness is to understand the ways in which normal function becomes abnormal". By the middle of the 19th century, physicians started to abandon Latin and to switch to their own languages in medical documents [4,5]

Another milestone of the 19th century was the discovery of microorganisms by the French chemist **Louis Pasteur** (1822-1895). He found bacteria in fermenting alcohol and milk. He and **Robert Koch** (1843-1910), a German physicist, discovered that bacteria were the causative agents for infectious diseases. Pasteur developed the heating process, named after him (pasteurization) for killing bacteria in milk and alcohol. Koch is known for finding the causative agents for tuberculosis and cholera. In the 18th and early 19th century, surgery was usually complicated by infection. If the patient was lucky, drainage of the wound occurred, and the wound healed. The draining liquid was called "laudable pus", and later attributed to staphylococcal infection. If the patient was not lucky, streptococcal infection occurred, which was deadly in most cases. **Joseph Lister** (1827-1912), a British surgeon, successfully used the first antiseptic agent, carbolic acid, for disinfection of accidental and surgical wounds. He discovered it when it was used for eliminating the smell of sewage and used it, for what is known today, as antiseptis (treatment of infections) and asepsis (prophylaxis of infections). [4,5]

Inhalation anesthesia had its roots in the production of nitrous (neitros) oxide by the British chemist **Joseph Priestley** (1733-1804) in 1776. **Humphrey Davy** (1778-1829), another British chemist, decided to investigate its effect in humans and inhaled it. Because of the euphoria he experienced he called it laughing gas. This term is, as you may know, still in use. Laughing gas was used as a drug,

administered by comedians at so-called laughing-gas parties. In 1844, **Horace Wells** (1815-1848), an American dentist, observed at one of these parties in Hartford, Connecticut, that an individual, under the influence of laughing gas, injured himself and did not feel any pain. With this observation, inhalation anesthesia was born. In 1846, ether was used for the first time for anesthesia with a sponge soaked with ether. [1,4,5]

Pharmacology started to develop in the 18th century and became an established science in the mid 19th century. Quackery also developed at this time.

The last 100 years brought unparalleled discoveries and breakthroughs in medicine and related sciences. Immunology (immunis = free, exempt), with the discovery of phagocytosis and antibodies, was introduced at the beginning of the 20th century. Vitamins were discovered, based on deficiency diseases such as scurvy and beriberi. The term "vitamins" was contracted from "vital" and "amines" by **Casimir Funk** (1884-1967), an American biochemist, who believed, erroneously, that all vitamins were amines. Vitamins were soon believed to prevent and cure all kinds of diseases. This belief is still maintained today and pharmaceutical companies have exploited and continue to exploit this superstition. Endocrinology (endo = within; crinein = to separate) with the concept of hormones was introduced. Hyper- and hypofunctions of endocrine glands were described, most importantly, diabetes mellitus. Hormones were isolated which led to the treatment of diabetes mellitus and the introduction of oral contraception. Neurophysiological research discovered synapses and neurotransmitters leading to treatment of Parkinson's disease. Genetics became a new science. The discovery of the structure of DNA by the molecular biologists **Francis Crick** (British) and **James Watson** (American) in 1953 and the set-up of the Human Genome Project in 1986 have changed and will further change medical ethics and treatment options, such as drugs by design. Advances in surgery have included excision of diseased organs and tumors, correction of congenital heart diseases, joint replacements, coronary bypass surgery, in vitro fertilization followed by implantation of the embryo into the uterus, and organ transplantations with the development of antirejection therapy. Diagnostic progress started with the important discovery of x-rays by the German physicist **Conrad Roentgen** (1845-1923) in 1895. Electrocardiography und electroencephalography, both

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important diagnostic tools, were invented in 1901 and 1929, respectively. Computer tomography, magnetic resonance imaging, and positron emission tomography have an enormous impact not only on advanced diagnosis and resulting treatment but also on research in many areas, for example, on the etiology and pathogenesis of mental diseases. There were, of course, enormous advances in drug therapy. The discovery of penicillin by the Scottish bacteriologist **Alexander Fleming** (1881-1955) in 1928 and from then on the development of many different groups of antibiotics is just one small example. The pharmaceutical industry expanded significantly after World War II. Preclinical testing and guidelines for clinical studies have been introduced. With the help of the high-tech media, the public now know more than ever about medical advances. Roy Porter called this phenomenon socialization of medicine and medicalization of society. [4,7] Medical news with the use of medical terms are presented on TV, radio, in newspapers, magazines, books, and above all, on the Internet. Medicine has become an important business and contributor to the economy to such an extent that profit has become significantly more important than the benefits to the patient. Advertisements for drugs, diagnostic procedures, surgical procedures, hospitals, and physicians are presented to the consumer in the same way as advertisements for orange juice or tooth paste. Advertisements for drugs include their side effects, reported with the same "happy language" as the "wonderful" effects while showing a happy, smiling person. The media scare the consumers by telling them that they will certainly get this or that disease or even die if they do not undergo this or that test and take this or that drug, only to come back a year later to announce that they are at risk for this or that disorder if they followed the previously given advice.

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The Status of the Statins

The statins are modern pharmaceutical marvels that effectively reduce serum cholesterol levels, a well known risk for coronary heart disease and stroke - the major killers in our society. They do so by decreasing the intracellular production of cholesterol through the inhibition of the HMG-CoA enzyme in the liver. Studies have repeatedly shown their effectiveness in various populations and have given indications that these drugs have additional beneficial effects besides that of cholesterol lowering. For example, Zetia (Ezetimib) - as was reported at the American Heart Association this year - a new cholesterol lowering drug also significantly lowers the level of C-reactive protein (CRP). The role of C-reactive protein is still unclear, its presence is a non-specific indicator of an ongoing inflammatory process in the body. An inflammatory process in the lining of the arteries is currently the most attractive theory as to the genesis of the formation of arterial clogging plaque.

Here is a listing of the statins in the market

Mevacor -----	Lovastatin -----	1987
Pravachol -----	Pravastatin -----	1991
Zocor -----	Simvastatin -----	1991
Lipitor -----	Atorvastatin -----	1998
Lescol -----	Fluvastatin -----	1999
Crestor -----	Rosuvastatin -----	2003

By Elena Sgarbossa, MD

In this section we present and discuss medical terms or phrases that may be of interest to translators because of their novel, misleading, or multiple meanings. We invite readers to send in their questions and contributions!

Glossary of abbreviations

A common stumbling block is that of abbreviations, which are not always spelled out in the source text. While medical abbreviations can sometimes be found online or in dictionary lists, lists are often incomplete. Or, if an abbreviation's several meanings are located,

how does one decide which is the most appropriate for the context?

Here we continue offering a glossary of medical abbreviations. We hope you will find it helpful.

CEA

- **carcinoembryonic antigen:** an antigen whose presence and level in blood are ascertained as a tumor marker. CEA is the tumor marker most frequently utilized when GI, lung, and breast malignancies are suspected.
- **carotid endarterectomy:** a surgical procedure to remove plaque from one of the carotid arteries
- **cultured epithelial autografts:** skin grafts prepared from small samples of the patient's own skin and expanded in tissue culture
- **continuous epidural [infusion] analgesia:** administration of analgesic agents through a catheter inserted into the epidural space (the space between two meningeal membranes outside the spinal cord).
- **cost-effectiveness analysis:** a form of economic efficiency analysis. Its main goal is to define, for policy makers, how to allocate finite health care dollars among possible alternative strategies or programs.

CRO

- **contract research organization:** A person or an organization contracted by the sponsor of a clinical trial to perform one or more of a sponsor's trial-

related duties and functions.

- **controlled-release oxycodone:** a formulation of oxycodone (an opioid analgesic drug) with a rapid onset of action, a short half-life, and a long action duration. It is prescribed for the control of severe pain.
- **ceftriaxone:** an antibiotic.

DM

- **diabetes mellitus**
- **dermatomyositis:** a rheumatic disease characterized by inflammation of the blood vessels of the skin and muscles
- **dexamethasone:** a steroid
- **dextromethorphan:** a cough-suppressant drug
- **daunomycin:** an antibiotic of the anthracycline family, used mainly in oncologic therapy

DMD

- **Duchenne muscular dystrophy**
- **dry matter digestibility**

About the Author:

Dr. Elena Sgarbossa is a cardiologist, medical writer, translator and member of the Editorial Board of Caduceus. This column will be a regular feature. Division members and readers are welcome to contribute.

Words About Words and Related Words

Our Glossarium features terms in English, but in their definitions we may also include Spanish terms or terms in other languages that are common sources of confusion during translation.

bleeding vs hemorrhage .. these words often appear in consultation groups as a question for the English<>Spanish translator. In English, bleeding and hemorrhage both infer a loss of blood but with clear quantitative differences. Bleeding means loss of blood of unspecified amount ranging from a few drops during shaving, to a superficial cut that may require a bandaid, to normal menstrual bleeding. Hemorrhage refers to copious bleeding that usually requires medical attention. However, in peninsular Spanish the preferred translation for bleeding seems to be *hemorragia*, the translation for which in English would be hemorrhage - thus, the problem. *Sangría* does appear in the DRAE as the act of bleeding as well as the popular drink. "*Sangramiento*", which is heard often in colloquial Spanish as an equivalent for bleeding does not appear in the usual Spanish dictionaries.

emergency vs urgency .. the emergency requires immediate care to save life or prevent significant injury or disability. Severe trauma, gunshot wounds, hemorrhage, any life-threatening situation, all are typical emergencies. Urgency refers to the medical condition or injury that requires attention within a short period of time, but not immediately. This official distinction does not apply in peninsular Spanish where everything is an urgency of greater or lesser gravity. The Spanish for Emergency Room would be *Sala de Urgencias*. In the United States, however, it is *Sala de Emergencias*. The overuse of American emergency rooms for non-emergency situations has given rise to the establishment of urgent care centers, within or outside the hospital premises, to care for those cases.

The use of the word *emergencia* (as opposed to *urgencia*) is widely disseminated within Latin American countries.

medical waiver .. a waiver is the voluntary relinquishment, expressly or by implication of some claim or right. A medical waiver is not so much a medical certificate (as it is often misused or misunderstood) but a legal document understood best through examples, for

instance: the employees in the example above sign a medical waiver relinquishing their right to claim for any problems of a medical nature that may come about during the physical fitness program in which they are about to participate. Likewise, a school requires a medical waiver signed by the parents of children attending a summer camp releasing the school of any responsibility for illness or injury incurred while attending said summer camp. The signatory of the waiver, would be relinquishing his right to claim for adverse consequences of a medical nature incurred during camp. Conversely, children with some form of illness or impediment who participate in said camp may be asked to obtain a medical clearance from their physicians indicating whether they are able to participate fully or with specified restrictions.

stroke .. a very old term used for medical cerebrovascular accident, CVA (*accidente cerebrovascular, ACV*). It borrows from the Greek via its synonym apoplexy, "a seizure", "a cerebral attack", "a brain attack", as in being "struck down" (originally by the gods).

Strokes, just like heart attacks, are most often caused by atherosclerotic blockages in cerebral circulation. In Spanish the commonest equivalent to stroke is *derrame cerebral* or just *derrame*, or *embolia*. It is difficult to tell how these expressions gained in popularity but they are generally used and understood by both lay public and medical personnel. *Embolia* is embolism, a dislodgement of a vascular clot that travels within the circulation until it lodges in a vessel of a smaller caliber interrupting circulation to the distal tissues. This can be a mechanism in the causation of a stroke, by no means the commonest one. It is not unusual to also hear the word *embolia* in the context of a heart attack. Perhaps the word refers to the suddenness of embolic episodes, stroke, or myocardial infarction. The word *derrame* has an equally obscure origin. *Derrame* means spill or "effusion", as in pleural effusion or pericardial effusion. *Derrame* indeed alludes to a specific type of CVA, the hemorrhagic stroke. However, *derrame* is commonly used to refer to any stroke.

By Rafael A. Rivera, M.D., FACP

What are memories worth? - Alzheimer's disease, move aside

My best friend died suddenly last year.

Unexpectedly, after mowing the lawn while sitting in the garage enjoying a cold drink, he had a massive stroke and went to heaven without delay. He, and his wife, family and loved ones, were spared of the miserable times of an end of life complicated by neurologic deficits, bed sores, bowel and bladder control problems, communication by rudimentary sign language or facial expressions. If lucky, he could have settled securely into a wheel chair to be fed while trying to understand what is shown on television, if the residual brain function was good enough to make sense of anything in the story. The picture needs no further description, it has become all too common in our time. Everybody is destroyed.

Not having to contend with years of unendurable hardship was the theme I latched on to in an effort to soften my friend's wife despair. Of course, having medical experience and a bit of a literary bent I painted a perfectly correct and vivid picture of misery. I was rewarded with a heartfelt, "Oh yes, you are so right". And she worked and nurtured the comforting thought, shared it later on at the grieving support group.

At the memorial mass, I was given the honor of saying a few words. I am not a man of few words. And, if the topic is a favorite one, I can take off and stay aloft for a while. This is what I wanted to say. The secret of life is memories. It's the essence of every society's rituals. Cultural roots create the basic models. It's the capturing of meaningful, enduring, emotionally saturated moments in the company of family and friends. We make, take and share as many photographs and videos and souvenirs as we possible can to record those moments forever. Memories is the making and recording of our personal history. The more intense and vivid they are, the more often we remember and share them with a sense of pride. Memories is an instance in which the more you have the better you'll be because the real worth is having as many as possible to look back at them in the re-living of the pieces of our lives. And who your best friend

is, is the one that has made and shared with you the longest set of everlasting memories. I tried to say all of this at the funeral mass but, as luck would have it, I choked up, got derailed and only managed to limp through and step out of the podium in tears.

Now, if one has Alzheimer's disease, does one forget all those wonderful life sustaining memories? The good news is no. That may well be all that remains available for retrieval. This type of dementia hits primarily the short term memory making ability of our brain. As we know, short term memories are later transferred to long term memory storage areas - a good old attic kind of place. But then again, we always find things in the attic we had

“The secret of life is memories. It's the essence of every society's rituals. Cultural roots create the basic models.”

completely forgotten. Forgetting is a 'multifactorial' event, as we say in scientific medicine. Just like a slip of the tongue, there are slips of memory. Short circuits in synaptic interaction that fail to open the storage bins. And then, often enough, we do not want to remember, so we repress. And things get complicated in a hurry. But what is clear is that the intensity of a pleasant experience, is what makes for a longer lasting effect, a longer lasting memory. Or a longer lasting repression, if extremely unpleasant. My best friend, and our families and dear friends never had trouble remembering our good times because we relived them constantly. It's called reinforcement. So, the move into and out of the neighborhood 30 some years later, the roasting of pigs, the Saturday domino games, weddings, births, baptisms, anniversaries, graduations, Christmas and New Year celebrations, - all were carefully nurtured memories kept alive and reinforced as often as we could.

In conclusion: live intensely, reinforce often! It's what will bring back wonderful memories and a satisfying smile to your face in the later years, in spite of all the brain skipping and stumbling.



By Rafael A. Rivera, M.D., FACP

Voices, murmurs, rumblings, wheezes, clicks, cries, laughter, howling, screaming, ringing, grunting and even obscenities are all part of the diagnostic landscape.

Clinical medicine is replete with noises. Many are characteristic, others are always surprising, others can make us laugh or cry and still others are a very private experience that nobody can verify. Life itself begins with an unmistakable cry followed by tears and joy - an unforgettable experience that makes everybody forget the previous **moans** and **groans** and the final **scream** that may accompany that last push of a pregnant mother. The quality of the newborn baby's cry has clinical significance; it will be entered into the Apgar scale - a neonatal scale of indicators of the overall health of the newborn. A **cephalic cry of the newborn** is a shrill or high pitched penetrating cry that suggests *intracranial damage*. Handheld video cameras allowed today into delivery rooms and birthing centers will capture not only the baby's cry but all other sights and sounds of family for posterity.

Starting with the head or, more precisely, it's interior, we know of a very personal and peculiar experience - the **auditory hallucinations**

characteristic of a *schizophrenic psychosis*. Tormenting voices that dictate the patient's behavior to include homicide and suicide. The *use of illicit hallucinogenic drugs* is today the most common cause of hallucinatory experiences, both auditory as well as visual. Another very personal but widespread auditory experience is that of **buzzing** and **ringing** in the ears, medically known as **tinnitus**, which in turn can be vibratory or non-vibratory. These can be due to *conditions of the ear proper or the contiguous brain structures* and also be a secondary *side effect of medications*, typically aspirin in high doses. At the other end of the auditory spectrum is the absence of sound - **deafness** - which can be congenital or acquired and due to a variety of causes, most notably *viral infections such as mumps (parotitis)* or be a *sequela of meningitis*. In most instances deafness is remediable with the use of hearing aids or cochlear implants.

Damage or functional impairment of brain tissue due to multiple causes can give rise to clinical manifestations that include a number of unusual and interesting sounds and

utterances. **Echolalia**, sometimes seen in *schizophrenia*, *autism* and *Tourette's syndrome* is when somebody repeats the speech of somebody else in an involuntary and meaningless way. Whether a word, a phrase or an entire sentence, any utterance is repeated in its entirety along with the tone and accent of the speaker. Another disorder of speech fluency is **stuttering**, characterized by the involuntary repetition of sounds, syllables, parts of words, whole words, pauses and prolongations during speech. The *classic seizure of grand mal epilepsy* may be preceded by a sudden **loud scream or a grunt** or both. *Mad cow disease*, a type of spongiform encephalopathy caused by proteinaceous infectious particles known as prions, has been known to produce, in well documented human cases, episodes of disconcerting **howling** and **screaming**. Mad cow disease is an animal variant of another human disease known as *Kuru or laughing sickness*. This type occurs in cannibal natives of New Guinea that habitually eat human brain tissue and is characterized by **unexpected attacks of laughter**. Another similar sounding typical brain

disease of aborigines of eastern islands is *Koro* (instead of *kuru*). *Koro* is characterized by the horrifying delusional idea that the patient's penis is inexorably disappearing into his abdomen. Similar sounding names of illnesses have always brought forth interesting ideas to help medical students learn which disease is which. And so it is with *kuru* and *koro*. It is well known medical student lore that to remember these two just think that one disease makes you laugh uncontrollably while the other certainly can make a man cry loudly and desperately - "Ooooh my God ! ", an elocution that starts with the letter O (for Koro) - and can be heard all throughout the island.

The *crit-du-chat syndrome* - a genetic deficiency characterized by multiple congenital defects - carries the name of it's most characteristic feature, the production by the pediatric patient of **a soft wailing sound similar to a cat's meow**. The common *Tourette's syndrome* is a disease known for it's unstoppable nervous tics - brief and simple involuntary motions or complex spastic movements of the head. There are also vocal and respiratory tics manifested

"Times change but the clinical sounds remain the same."

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as **groans** and **grunts**, sometimes **barking** sounds emitted in a compulsive involuntary fashion. The also involuntary **production of scatological terms, obscenities and cursing** is part of the clinical picture. (The patient featured in the book and movie *The Exorcist* possibly suffered Tourette's syndrome).

Spasm of the powerful masseter muscles of mastication situated on both sides of the head provokes the characteristic **grinding, clicking and creaking sounds** of the *TMJ syndrome*. The TMJ (temporo-mandibular joint) is the delicate joint located right in front of each ear which can dislocate and bring articular surfaces together to produce the mentioned sounds or even become immobilized or locked if the surfaces are entirely out of alignment. Locking of the jaw is also the characteristic finding called trismus or lockjaw which occurs in *tetanus*, in which case it would be due solely to a 'tetanic' contraction of the masseters and not to a TMJ articular surface dislocation. And of course, we can't forget our grandmother's insistence that **teeth grinding or bruxism** in children is due to *intestinal parasites* until proven otherwise.

The classic **snore** or respiratory **rhonchus** occurs when the *soft palate and other structures in the oropharynx tremble*. A sneeze, an experience of most mammals, is a sign of nasal irritation particularly allergic. Today, as it did in the middle ages, sneezing elicits automatic blessings from the audience - "Bless you" or "*Salud*" -, intended to protect the person from the "soul loss" attendant to sneezing, at which time disease or unclean spirits may enter your body. Likewise, today in present day rural Latin America it is believed that "susto" - an intense frightening experience - leads to soul loss. Whatever medical symptoms may appear subsequent to *susto* will be attributed to it. **Cough** is the universal manifestation of *infection or irritation in the upper respiratory airways*. There are various types of cough worth mentioning. The typical **croup** or **inspiratory stridor** characteristic of an *infection of the larynx and trachea or the epiglottis*, the entrance to the larynx. The other classic cough is the **whooping cough** of *pertussis* - a paroxysm of from 5 to 15 short expiratory grunting coughs followed by the "whoop", a hurried and forceful inspiratory effort. Croups and whooping coughs are desperate childhood experiences that no mother will ever forget. Another typical respiratory sound is the high pitched **wheezing** that is associated with *asthma* and is due to air

flowing under pressure through constricted airways. Of the classic triad of asthma - cough, respiratory distress and wheezing, it's the latter that is considered the *sine qua non* of asthma.

Listening over the chest with a stethoscope we hear pulmonary sounds which are generically called **rales**, of various kinds and descriptions; these are *due to the movement of air through pulmonary tissue wet with fluids and secretions* of various kinds and quantities. The membranous lung cover or pleura can also produce **pleural friction rubs** due to *inflammation*.

The beating of the heart produces normal **heart sounds**. The majority of abnormal heart sounds are due to congenital defects or deformities of the valves through which blood flows in and out of the various chambers. These are called **murmurs** which relate to the turbulence of flow. Not all murmurs are necessarily pathological, some of them, the so called "innocent" ones, tend to disappear as we become adults. Other abnormal heart sounds have interesting names such as **clicks** and **honks** and **rumbles**. In areas of maximal turbulence one can hear and even feel **thrills**. Also, as in the membranous cover of the lungs, the heart's membranous cover or pericardium can also produce **pericardial friction rub** when inflamed.

The *diaphragm*, the muscular bands which divide the chest and abdominal cavities can develop *sudden spasmodic contractions* which suck air in forcefully and involuntarily, producing a noise which we all recognize as **hiccups**. Within the abdominal cavity the only source of sounds is the gastrointestinal tract. **Eruclations (belches, burps)** are due to the *rapid reflux of swallowed air* that may or may not be accompanied by swallowed food - an unwelcome event in the western world, not so in other parts of the world where the host expects some healthy burps as an expression of satisfaction. **Borborygmus** is the *normal rumbling sound of air mixed with intestinal contents* which we all experience at various decibels when hunger strikes. The complete *absence of intestinal sounds* - known as an **ileus** - occurs when intestinal motor activity is lost as in high grade intestinal obstructions. The expulsion of gas per rectum, called **flatus**, is a subject for which there is no scarcity of jokes and stories. Neither the sounds or the odor of intestinal gas passed per rectum have clinical significance. Absence of flatus can be associated with a developing intestinal obstruction.

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Within the musculo-skeletal system the word **crepitus** refers to the *cracking sound of bony structures within a joint*. It is a habit of some to crack the joints of their hands and fingers.

Speaking of the revolutionary use of sound in clinical medicine, the delivery of sound waves into the human body and their detection as they rebound from the various organs via modern ultrasonographic technology creates images that serve the clinical purposes of many specialties in modern medicine.

To end let me say a word about our classic personal listening device, the stethoscope. It has evolved from a simple primitive device to a highly sensitive and sophisticated medical instrument. The typical image of a modern physician carrying a stethoscope wrapped around his neck or shoulder in a carefree fashion would have been considered in earlier times an intolerable imprudence. It would predictably have lead to loud and unpleasant vocal sounds by a stern professor who would be offended to see the solemn instrument reduced to a hanging ornament. Times change but the clinical sounds remain the same.



RN

The typical white uniform characteristic of registered nurses in yesteryears is nowhere to be seen these days. It seems like everybody you see within the halls of a hospital or a medical unit of any kind wears a colored smock or scrub of some sort with a stethoscope dangling about their neck. It is hard for patients and their families to tell who is who, particularly to single out the nurses, not assistants or technicians of various kinds. A recent move is afoot to correct this problem. The editors of the American Journal of Nursing are promoting a square red and white patch that simply says: R N. The patch is currently being tested.

What's a Prion?

Defined as **proteinaceous infectious particles** or "**prions**" (the vowels are transposed for euphony), it's the name given to a normal protein that, simply, has gone bad. The new proteins may appear spontaneously with or without a preceding mutation and are able to cause other normal proteins to change their usual form and multiply and cause yet other proteins to follow this sequence. Thus one molecule can act as a "seed", catalyzing the formation of a prion aggregate. Prions are resistant to *proteases* - chemicals that normally destroy proteins (which originally led to the idea that prions may not be proteins; hence only "**proteinaceous**". Other investigators have found an "origami effect" in which the normal protein chains are misfolded in places. (*US News & World Report, January 19,2004)

And now, the "**infectious**" part. Proteins with prion properties can be transferred from individual to individual within the same or different species and can sometimes get into new cells and "convert" them to the detriment of the newly "infected" tissue or organism.

The known human diseases that are due to prions are

- a) the human form of mad cow's disease, which indicates that prions can cross species, and
- b) kuru- also known as laughing sickness(* see The Sounds of Medicine in this issue), a disease of cannibals in New Guinea who consume brain tissue of their dead brethren, which means the prions can resist intestinal degradation by human proteases.

Both kuru and mad cow's disease are members of a group of diseases - not all of which are due to prions- in which neurological dysfunction is associated with protein aggregation in nerve tissue.

By Zarita Araújo-Lane, LICSW
Edited by Vonessa Phillips

"Doctor, would you please make eye contact with the patient?"

Location: A teaching hospital in New England
Scene: The physician turns her back on the patient while sitting at a small desk. Throughout the examination, she directs her questions to the interpreter without ever making eye contact with the patient. The interpreter asks the physician to look directly at the patient when speaking.

Result: Having asked, "Would you please make eye contact with the patient," the interpreter immediately noticed a change in the provider's affect. Tension grew as the provider snarled, "I work with a lot of interpreters and I don't see what the big deal is".

The interpreter kept interpreting the session and when the patient left, she kindly approached the provider and offered her the opportunity to comment on the interaction using a Service Verification Form (interpreter agency time and comment sheet). Brushing the interpreter off, the provider replied, "No, everything's fine."

Immediately after the session, the interpreter called her supervisor and discussed a number of concerns and questions regarding her "duty" to make sure that providers maintain eye contact with patients. She questioned if she had done the right thing by instructing the provider to look at the patient. She asked if in the future she should wait for the end of the session to let the provider know of her "duty" as a professional interpreter. She wondered out loud if her intervention had made it worse for the patient, since the ensuing tension between provider and patient had been obvious to all.

Comments: A lot of pressure is placed on the trained interpreter to set the physical stage for direct communication in the interpreting session. Section A-2 of the MMIA Standards of Practice (1995), under the heading *Manage the spatial configuration of patient-provider -interpreter to maximize ease and directness*, states that the masterful interpreter "is able to hear and see both patient and provider", "can

be seen and heard by both parties", and works to "arrange spatial configuration to support direct communication between provider and patient." In this case, the interpreter could not see the provider while her back was turned. Also, the provider could not see the patient or the interpreter. The interpreter was right to be concerned.

Section A-7 of the MMIA Standards of Practice state that the masterful interpreter "suggests that patient and provider address each other directly." During the examination, the provider was not addressing comments to the patient. Again, the interpreter's concern is justified, but the issue is timing. When and how should the interpreter encourage direct communication between patient and provider?

Three cheers for the interpreter who chose to transform this painful experience into an opportunity for personal and professional growth! The "easy way out" would have been to label the provider as arrogant and uninformed. "What a jerk!" the interpreter could have said to herself, before moving on to the next assignment. But this interpreter is special, and chose the more noble path of introspection: she asked questions, and with her supervisor, took a closer look at variables such as the size of the room, the gender and ethnicity of the provider and patient, and both parties' previous experiences with interpreting.

A good question to start from is "was this intervention good for the patient"? The provider's behavior changed from the point of intervention, but only for the worse. Tension grew, and this may have made the patient nervous. Another question is "did I do the right thing by intervening?" Well, no one likes to be told what to do. How would the interpreter have felt if the provider had told her how to do her job? This intervention became such an issue, perhaps because provider was not properly trained to work with interpreters.

We know that only a select few providers have had

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the opportunity to be trained in working with interpreters. Most are not familiar with the Standards of Practice for Medical Interpreters. A true working partnership between providers and interpreters is still in its embryonic stages. With this in mind, should the interpreter succumb to passive silence, hoping that he/she never again has to work with an "arrogant" provider? Or is there a safe way to address the issues?

The best way of dealing with such a situation depends on where the interpreter works. In some health care organizations and contracting agencies, there are specific steps outlined in an employee "Guidelines and Policies" handbook. However, in the absence of a set procedure for conflict resolution, the issue of how to best address the situation at hand is generally left to the judgment of the interpreter.

Some interpreters would chose to wait until the end of the session to share their concerns regarding the lack of eye contact, presenting these as "technical" observations. However, there are other possibilities in this type of interaction. The interpreter might have chosen to look briefly at the floor, thus "forcing" the provider to look at the patient. Or the interpreter could discreetly move her chair closer to the patient so that they would be both be in the provider's line of vision. These simple, silent actions could do much to break the cycle of poor communication without creating unnecessary tension. But by verbally giving instruction or suggestion at times when life does not hang in the balance, the interpreter not only fails to break that cycle, but also often makes it worse!

Unfortunately, there are real power differentials in the medical field, and it will likely be years before providers as a group begin to view interpreters as colleagues with authority to request change. Wherever intervention is met with negativity, interpreters need to be able to voice their concerns and to partner with other professionals in conflict resolution. Interpreters should report to a direct supervisor and discuss the dynamics of any critical interaction. Until the system changes, making one's supervisor aware of the situation before discussing it directly with the provider is a wise course of action.

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*A little bit of everything***The making or faking of an illness**

Hypochondriasis is not, as it surfaced in a recent discussion, the making up or fabrication of symptoms or complaints of a possible medical nature. It is, rather, the exaggerated response to minor problems because of fear they might represent a serious medical condition. A dizzy spell might be a stroke, a stomach ache may be the beginnings of cancer. It is a real mental illness (not an oxymoron), the problem is getting the patient to realize that her (it's most common in females) beliefs are unfounded. The old term hypochondriasis has been replaced with "health anxiety" in some psychiatric circles. Hypochondriacs request testing, to include uncomfortable or even risky procedures, in order to rule out the possible presence of an unlikely disease. Unfortunately the reassurance of negative results is usually short lived. Psychotherapy can be effective, but fear of the psychiatric stigma can add to the basic difficulty.

Malingering Faking an illness is most common in males. In battlefield conditions ineffective faking may lead to the need for real self-inflicted injuries, from whence the present saying "to shoot oneself in the foot" is said to have begun.

A **factitious disorder** consists of the intentional production of physical or psychological signs or symptoms due to a psychological need to assume the sick role as evidenced by an absence of external incentives for the behavior. Münchhausen syndrome represents the best known examples of self-induced medical illness -well designed, startling and bizarre instances of self-inflicted disease or injury, often repeatedly, have been reported.

Physical delusions of illness do occur, the most notable one being that of a false pregnancy (pseudocyesis).

• **Rx** - is the symbol used in pharmacy for the Latin recipe meaning "to take". Physicians traditionally use the symbol at the head of a prescription to mean "Take thou this". But there's more. The letter R could stand alone for recipe. The x mark that crosses the tail of the R is said to be significant of the astrological sign of Jupiter. It was believed in earlier times that to precede a formulation with Jupiter's sign was a sort of invocation that would assure a favorable outcome. According to astrologers, the period of ascendancy of the planet Jupiter was thought to be a good time to gather herbs and concoct medicines.

It should be noted that in many Latin American countries, "Rx" is used not only to refer to prescription drugs, but is also the abbreviated form of "X-ray" ("radiografía", in Spanish).

• **Q fever** is the only disease whose name is qualified by a single letter. The Q meant "query", left as is until the causative agent of this respiratory infection was recognized. This was finally disentangled by American bacteriologist Herald Rae Cox and Australian microbiologist Macfarlane Burnett - thus, the current name *Coxiella Burnetti* for the causative organism. The name of the disease, however, remained the same.

• **Crisis or lysis** are two words medically associated with fever. Medically speaking that is how fevers "break". "By crisis" means rapidly. "By lysis" means a gradual resolution of the temperature elevation.

By Rafael A. Rivera, M.D., FACP

The Lighter Side of Infectious Diseases (ID)

Medical terminology appears ominous at first glance. The usual careful breakdown of the words into roots, prefixes and suffixes usually simplifies matters effectively. The daily jargon of medicine, however, also contains words, phrases, euphemisms, slang and stories hidden from public scrutiny, which are a source of fun and inter-professional jabs among healthcare professionals. Lets look at some.

Terms gone by.

The term venereal diseases (VD), never venerable but certainly well known in yesteryears, is almost unheard of these days. It has been supplanted by "Sexually Transmitted Diseases ("STD"), a substitution likely promoted by Valentine Day and the flower and greeting card lobbies, says Dr. Ludwig Lettau, an infectious diseases specialist and writer from whose writings I will draw liberally in this article.

Another notable acronym that died in its infancy was "GRID": for gay-related immune deficiency, an early term for AIDS in the 1980s. Political and epidemiological correctness very quickly stamped this one out.

"Quinsy", a very old and still popular term for a peritonsillar abscess in the pre-antibiotic era is no longer with us. Quinsy was the terminal illness of our first president, George Washington who was helped to his demise by the lack of antibiotics plus the required therapeutic bleedings of the era. "Angina", was also a non-specific old term for sore throat of various causes. Along the way "angina" was tied to a couple of prominent physicians of their times, as in: Ludwig's angina for a severe submandibular infection and Vincent's angina for what is better known as "trench mouth" or necrotizing gingivitis. Both Dr. Ludwig and Dr. Vincent are gone and the medical conditions named for them are moving fast toward permanent retirement. Angina was finally usurped by the cardiologists and installed as what is today the classic chest pain of cardiac origin.

Abbreviations of pathogen names.

The cause of the vast majority of short term infectious

illnesses is never determined. Terms like "germs" are common for the lay public whereas the healthcare professionals like to use "pathogens" or "microbes". When the public talks about the "crud" or "bug" that's going around, the professionals say that the presumed etiology is probably a virus.

Names of microbes are often long and unwieldy. The shortened versions are popular time savers among healthcare professionals. For instance, "Histo", "Blasto" and "Crypto" and other Star Trek sounding names - are shortened versions for certain fungi. Similarly, "Staph", "Strep" and "Actino" are common abbreviations for bacteria. Many shortened names of microbes consist simply of initials such as "HIV" or "MAC" (Mycobacterium avium complex). Initials and acronyms are even more common when referring to drug resistant organisms - an appellation such as "wondercillin-resistant" at least doubles the length of the name and doubles the cost of the next antibiotic for the tough to kill organism. The abbreviation "MDR" (multi-drug resistant) is sometimes used as a prefix, as in "MDR" tuberculosis.

Infectious diseases personified.

It has been a common practice in Medicine to honor physicians and investigators through the incorporation of their names in pertinent terminology. Thus we used to have the Wasserman test for syphilis which was supplanted by the VDRL (Venereal Disease Research Laboratory), both terms now defunct. The recent interest in the bovine Mad Cow's Disease, a spongiform type of encephalopathy, has reminded us of an uncommon human variant illness (which many of us never saw), Jacob-Kreutzfeldt disease, currently better known as Kreutzfeldt-Jacob. Sometimes the importance of the investigators changes over time and so does the alignment of names in the eponym.

A few years ago a Chicago researcher named a new species Salmonella mJordan in honor of basketball star Michael Jordan, possibly a first celebrity naming of its kind. Interested parties commented that they would have selected a more loftier sounding name like Aeromonas or Helicobacter to honor "his airness".

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Because of the negative image of Salmonella, the salmon industry has been lobbying for years to get the name of the genus changed to something less offensive for their product. Undoubtedly, because the genus is named after known pathologist, Daniel Salmon, the pleas from Big Salmon have fallen on dead ears.

A non-rigorous look at fever and chills.

Fever and the local heat of inflammation have generated many terms and expressions that refer to elevated body temperature. Technically temperature is "thermia", used in words as hypothermia (low temperature) for those suffering from exposure to the cold and hyperthermia (high temperatures) for those exposed to heat as in heat stroke. The formal term for fever is "pyrexia", derived from the Greek root *pyr* meaning fire - we often hear the description by a relative that the patient was "burning up with fever". Some names for infections refer directly to fire, such as "St. Anthony's fire", which was a term for erysipelas (a reddish, angry-looking streptococcal skin infection). The "fiery agent of the Israelites" is not an intelligence officer of the Israeli secret service but rather another name for filariasis. Surgeons often refer to fever as "heat", as in "Any heat today?" - a common question to start the daily rounds. The word fever appears in the name of a large number of infectious diseases coming up shortly.

When one looks at a fever chart one realizes that what is referred to as the patient's "temperature curve" is not so curvaceous but comes in different sizes and shapes or peaks and valleys. A "fever spike" is a sudden rise in temperature and the adjectives describing fever patterns use words as: continuous, intermittent, recurrent or even "hectic", which means a disordered series of ups, downs, slopes and straights without any medical meaning.

A common accompaniment of fever is a chill, a definite overall sensation of coldness. An involuntary shaking movement may accompany in which case it's a shaking chill or a rigor, which can be momentary or prolonged. A chilblain is a localized form of skin injury due to cold exposure. Several other cold-related terms are in use. "Cold abscess" refers to a collection of pus lacking the usual characteristic sensation of warmth, thus qualifying as the oxymoron "cold" abscess. A cold abscess is a common accompaniment of tuberculosis. A "cold sore", also known, confusingly, as a "fever blister", has nothing to do with a

temperature rise or fall, but is the usual colloquial expression for a typical herpetic vesicle that appears around the mouth during an upper respiratory infection or "common cold" and also in a variety of diverse situations such as stress, sun exposure, menstruation, fever, infections elsewhere in the body and other circumstances. A "canker sore", the typical white colored ulceration that occurs inside the mouth is due to bacteria and is not related to the cold sore.

A broad spectrum of living color

Colors abound in infectious diseases. Some of the names of illness are indeed colorful, to wit: yellow fever, scarlet fever, black water fever, black piedra, white piedra, or even spotted fevers, all of which paint a vivid picture of a symptom or a sign of the infection. The black plague is the name of the bubonic plague, so called because of the characteristic dark colored, enlarged hemorrhagic lymph nodes (bubos, thus bubonic). White plague, on the other side, is one of many names for tuberculosis because of the whitish nature of the enlarged lymph nodes and other tubercular lesions.

It is safe to say that some shade of red leads the medical color spectrum. We have pink eye, red throats and red necks, but not usually in the same patient. We have rose spots and roseola but neither are caused by *Roseomonas*. We also have red colored diapers caused by the organism *Serratia*, green nails caused by *Pseudomonas* and purple urine bags caused by *Klebsiella*. Blue colored lunulae are seen in cases of Wilson's disease as well as a distinctive copper colored ring around the cornea.

The Great Wars

The militaristic jargon of allopathy has a substantial presence in the language of infectious diseases where pathogenic microbes are, of course, the enemy. For example: bacteria invade the lung by breaching host defenses in an attack of pneumonia, to which we respond aggressively with "big gun" antibiotics that have powerful bactericidal action. We long for an effective narrow spectrum "magic bullet" but often settle for broad spectrum "shotgun" therapy that inflicts collateral damage on innocent bystanding normal flora and peace loving commensals. The pharmaceutical industry joins the fighting lingo with appropriate warfare sounding word

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elements like: "max", "sup", "dyna" and "omni". Other common ID slang terms related to antibiotic microbial treatment includes "bug juice" or "bug killer" for antibiotics in general; "amphoterrible" for the unpleasant side effects of amphotericin-B, "wondercillin" or "ceph du jour" for the latest broad spectrum antibiotic.

Zesty liaisons, social diseases and political correctness.

The practice of infectious diseases medicine occasionally requires detailed descriptions of sex, drug use, and unpleasant body secretions and excretions as well as unpleasant medical conditions. "Social disease" is a euphemism for an STD, and most social diseases in turn have multiple other common names. Syphilis was called "the great pox" as it ravaged Europe in the years after Columbus's return from the new world. An international blame game was in force at the time, because syphilis was also called "the French disease" by the English and Germans, "the Spanish pox" by the French, "the Polish disease" by the Russians, "the Turkish disease" by the Persians, and so on. "Bad blood" as an old term for syphilis is just too ambiguous to be useful in the era of blood-borne viruses. Gonorrhea has been known as a "dose of clap", just "a dose" or just "the clap".

Ectoparasites, such as lice and mites are often generically considered "cooties" or "bugs". Pubic lice has traditionally been called the "crabs". Colorful street names for pubic lice include "crotch crickets", "gentlemen's companions", and "neighbors to the south". "Body lice" should really be called "clothing lice" since they spend most of their time on the seams of clothing and not on the skin which they visit only to take a blood meal. Scabies has been referred to as the "7-year itch" attesting to its capacity for chronic infestation. Scabies plagued Napoleon and his troops, which perhaps explains the mystery of why Napoleon has almost always been depicted with one hand inside his shirt, as if scratching himself.

Nothing brings fear to a face faster than the possibility of imminent diarrhea - generically called "the runs" or "the trots". Analysis of the escatological euphemisms for travelers' diarrhea reveals that they are almost always made up of two parts. The first seems to be a geographic reference to a specific city, region or country, such as: "Chile waters", "Delhi belly", "Rome runs" or "Turkey trots", or an ethnic group as in "Aztec 2-step" or a well

known person associated with the region ("Montezuma's revenge". The second is a reference to some fast movement, as in "back door sprint" or "Bangladash". Certainly, in these days of political correctness some of these names are used in friendly company.

On the other side of political correctness is the fact that infectious agents recognize neither race nor national boundaries. Traditional infectious names include nationalities, such as, Norwegian scabies, Oriental sore and the hemorrhagic fevers of Bolivia, Argentina, Venezuela or Korea.

The biggest term wins

ID specialists succinctly describe the skin lesions of Lyme disease as "target lesion" or "bulls-eye lesion", whereas the dermatologists - acknowledged masters at creating elaborate Latinized three-word expressions - would call it "erythema chronicum migrans". Likewise, the "itchy red bump" skin lesions of AIDS would turn out to be "prurigo nodularis rubra" and the "red man syndrome" resulting from the histamine release associated with the use of the antibiotic Vancomycin would become "hominis rubra glycopeptidogenica".

To end along these lines, there is the time-honored term in medicine - Fever of Unknown Origin (FUO) for those patients who maintain a well documented higher than normal temperature for an extended period of time, with or without associated symptoms. For those unexplained fevers lovers of Latin would most certainly prefer "pyrexia perplexia".

References:

- 1 . Lettau, LA. The Language of Infectious Diseases. *Clinical Infectious Diseases* 2000;31:734-8
2. Lettau, LA. On the run: emporitric enteritis by every other name. *Stitches- The Journal of Medical Humor* 1997;61:27-31



Match the Eponyms

Eponyms are words based or derived from a person's name. Medical eponyms are diseases, signs, symptoms, tests that carry the name of a physician, scientist, investigator or an important person who suffered a disease. For example, you are familiar with Alzheimer's disease, so named after the German psychiatrist who discovered it; Lou Gehrig's disease, so named for the acclaimed baseball star who suffered the disease amyotrophic lateral sclerosis (ALS); or the Pap smear, so named in recognition of Dr. Papanicolau. Do your best, then look up the answers on page 38.

Try your wits by matching the following:

- | | |
|----------------------------|------------------------------------|
| 1. Graves disease | a. leprosy |
| 2. Bell's palsy | b. mongolism |
| 3. Down's syndrome | c. connective tissue defect |
| 4. Hansen's disease | d. hyperthyroidism |
| 5. Bright's disease | e. nephritis |
| 6. Crohn's disease | f. facial paralysis |
| 7. Marfan's syndrome | g. inflammatory bowel disease |
| 8. Barrett's esophagus | h. decompression sickness |
| 9. Caisson's disease | i. congenital megacolon |
| 10. Hirschsprung's disease | f. cancerous changes due to reflux |

Match the Discoveries

The 10 greatest discoveries in Medicine. Can you match the discovery with the scientist? Do your best, then look up the answers on page 38.



- | | |
|-------------------------|--------------------------|
| 1. Human anatomy | a. William Harvey |
| 2. Circulation of blood | b. Andreas Vesalius |
| 3. Bacteria | c. Wilhem Roentgen |
| 4. Vaccination | d. Alexander Flemming |
| 5. Surgical anesthesia | e. Ross Harrison |
| 6. X-ray beam | f. Crawford Long |
| 7. Tissue culture | g. Edward Jenner |
| 8. Cholesterol | h. Nikolai Anichov |
| 9. Antibiotics | i. Maurice Wilkins |
| 10. DNA | j. Anton Van Leeuwenhoek |



Stiff - The Curious Lives of Human Cadavers

By Mary Roach

W.W. Norton & Co. 2003, ISBN 0-393-05093-9

Death is such an overwhelming event that the family's only ante mortem concern these days is whether to bury or cremate the remains, as dictated by the culture or expressed in a will - lest there be other instructions such as a donation of organs or the entire body. The efficiency of the funeral industry takes care of every detail in keeping with expressed needs and it's over. It wasn't always so, of course. Mary Roach, a well known reporter and magazine writer who has a monthly column in the Reader Digest, spent quite some time tracking this interesting topic throughout history: what happens to cadavers between the pronouncement of death and the final disposition.

Anatomical dissection of a human cadaver is one of the very first activities a modern medical student gets his hands into, literally. Usually four per table, students gather around to familiarize themselves with their assigned cadaver with which they will live, care for and learn from for the first 6 months of their medical education. Medical schools go out of their way to foster a respectful attitude towards gross anatomy cadavers. "To understand the cautious respect practiced nowadays, it helps to understand the extreme lack of it that pervades history", says Roach.

The use of cadavers for the purpose of learning how the body works was first accomplished during the reign of Egyptian king Ptolemy 1 circa 300 years BC. The established practice of mummification in those days simplified the process as a matter of course. Herophilus, dubbed the Father of Anatomy, was the first physician to actually dissect human bodies. Criminals were considered suitable for the practice which included, out of anger or retribution, the practice of dissecting some live ones as well. The tradition of using executed criminals for dissection persisted and hit its stride in 18th and 19th century Britain when private anatomy schools flourished. From the 16th up until the passage of the Anatomy Act of 1836, the only cadavers legally available for anatomical dissection were those of executed murderers.

Suffice to say that there has always been a greater need - good or evil - for cadavers than what can be supplied from executions - even in olden days when capital punishment was easy to hand down (though quite messy to administer). Securing cadavers in a variety of ways is well documented in American and European history. Corpse snatching prior to burial was preferred, but anatomists also paid well for unapproved disinterments in search of those known to have had interesting diseases or anatomical peculiarities. At an academic level, paying for medical school with corpses was an acceptable solution for certain Scottish schools. In summary, author Roach runs down all practices with attention to detail owing to her painstaking research and adding a twitch of humor when ever possible.

"the most curious historical enigma of all - the search for evidence that the soul has left the body after death"

Besides the teaching of anatomy, the methodical dissection of a cadaver in its entirety for the purposes of learning or verifying the cause of death is the centerpiece of the medical field of Anatomic Pathology. An autopsy, as it is called, is the final arbiter and a revered tool in medical teaching institutions. Was the diagnosis correct? Were there other contributing factors? What are the anatomical correlates to what the clinical information had provided during life? Medical teaching hospitals actively seek permission from patients and relatives to perform autopsies, but the number of autopsies has steadily declined over the years. For well understood reasons patients and families seek and end without further ado. Cultural mores are also involved. US military medical personnel found the absence of anatomy use of cadavers in Pakistan's Kandahar Medical School. Modern day Taliban rule follows strict Koranic edicts which prohibit the use of cadavers or skeletons, even those of Non-Muslims, a practice other Islamic countries allow for the teaching of anatomy.

Applying the basic knowledge of the medical specialty of Pathology for judicial purposes is what Forensic Medicine is all about, a field that is currently enjoying surprising publicity due to biomedical and technological advances

Continued from page 22

further glamorized by television programming and actual court cases involving celebrities.

Besides the teaching of Anatomy, Anatomic Pathology and Forensic Pathology, there is also the teaching of Mortuary Science - the preparation of cadavers for funeral services. Author Roach reminds us that open casket viewing of the deceased is a relatively recent development of the last 150 years. It serves two very practical purposes: it reassures the family that their loved one is unequivocally dead and that indeed the body is that of their loved one. The preparation of cadavers for viewing via arterial embalming with formalin, a trade fathered by Thomas Holmes, caught on during the civil war; before that, cadavers, if shown, were laid on ice. Mortuary practice got a boost in public attention when the corpse of Abraham Lincoln traveled from Washington to his hometown Illinois. Modern day use of colorants, plastics, wax additives and cosmetology techniques can improve considerably the looks of a cadaver. Plastic and reconstructive surgeons hone their skills by the use of cadavers, mostly faces, for practice - an experience with which author Roach begins this interesting book.

Automobile impact research has used cadavers in drivers' seats and front halves simulators resting on machine accelerated sleds that are stopped abruptly to mimic the forces of a head on collision. This has produced vital information for the design and development of steering wheels, seat belts, front ends of automobiles and head rests. Injury analysts are modern experts in the field of study of wounds and breakages who determine, from the study of remains, the implications of crashes and explosions, a field that got started in 1954. Further ahead, the field of aerospace pathology now similarly looks for patterns of injury in fatal aircraft accidents.

The verification of death is an area dealt with at some length by the author, who quotes from the book *Buried Alive* by Jan Bodeson. For most of history the only sure way to tell somebody was dead, the one agreed upon by the decision making authorities, was evidence of putrefaction. Otherwise, inflicting serious pain was often used as a means of verification. Pincing of nipples or testicles, tongue pulling, razor cuts, needles jammed under the nails were all tried - ultimately, putrefaction always decided the question. A curious moment in history reverberates to our current colloquial terminology - specifically the saying

"Saved by the bell." In Germany during the 1800s it became fashionable to attach strings to fingers and toes of presumed dead bodies awaiting for putrefaction - strings that were, at the other end, tied to a bell. Any movement would create an unmistakable ring of the bell. Years passed and by the 1940s - having heard no bell that would save the comatose or the heavy sleeper - the practice was discontinued. The saying, however, was adopted in our boxing jargon. When the fighter is knocked down and the referee starts the required counting, he could be "saved" by the bell that automatically stops the referee's count. Added linguistic liberty has been added to the saying that now includes anytime something happens at the last moment that prevents an undesirable outcome.

Another curious combination of words is that of a "beating heart cadaver" - which has become a relatively common modern medical occurrence. A brain dead person - one that satisfies the current legal definition of death - has her organs and tissues "kept alive" i.e., properly perfused and oxygenated by means of life support technology, in order to have the surgical removal of organs and tissues for donation.

Finally, the most curious historical enigma of all - the search for evidence that the soul has left the body after death. Dr. Duncan MacDougall of Haverhill, Massachusetts is most often quoted in this regard. He designed a special bed - a platform scale sensitive to two-tenths of an ounce - in order to tell if a significant weight change occurred - to be interpreted as a sign of the departure of the soul upon death. In 1907 he published his findings in 5 human volunteers. Results: three-fourths of an ounce were lost, exactly 21 Grams - the title of a recent movie where this striking allegations is used in the script.

The research for this book alone makes it a must read.

Additional books related to the subject:

1. *Cemetery Stories*, Kaherine Ramsland Harper Collins 2001, ISBN 06-018518-x
2. *The American Way of Death - Revisited*, Jessica Mittford Vintage Books. ISBN 06-679-77186-7

By Gilberto Lacchia, MD

Tips & Tricks for Medical Translators

The PubMed database is one of the most useful online resources for medical translators who actively or passively work with the English language. PubMed provides free access to MEDLINE, National Library of Medicine (NLM) premier bibliographic database, which contains over 12 million citations and abstracts in the fields of medicine, nursing, dentistry, veterinary medicine, health care systems, and preclinical sciences. The database is built from over 4600 biomedical journals published in the United States (52%) and abroad. Journals in approximately 30 languages are indexed. Publications indexed extend back to the mid-1960s; abstracts are present in about 76% of the citations. The database is evergrowing and updated daily.

Search Syntax

Boolean operators - Keywords and search expressions may be connected by boolean operators:

AND (&): this is the default operator. It is used to retrieve a set in which each citation contains all the search terms. This operator places no condition on where the terms are found in relation to one another; the terms simply have to appear somewhere in the same citation.

OR (|): it is used to retrieve documents containing at least one of the specified search terms.

NOT: it is used to exclude the retrieval of terms from the search.

The operators may be connected to form complex search expressions and refine the search results (Table 2).

Phrases - Words enclosed in double quotes are searched as phrases. PubMed, however, does not perform adjacency searching: its search engine cannot search for exact phrases within the entire database as other web search engines do (e.g. Google). Instead, it searches a specific phrase index containing the most common phrases in the database. If the phrase searched is not indexed (because of its infrequency) the search engine will search the single words separately and the message "*Quoted phrase not found*" will appear. This, however, does not exclude that the phrase is present in the retrieved results.

Example:

"hematic cardioplegia"

The search engine finds 3 citations: although the message "*Quoted phrase not found*" is displayed, the phrase appears

in all the abstracts.

However, the translator should be suspicious when getting a "phrase not found" message: non-English speaking authors often translate their abstract in English using non-standard medical terms. In the example above, the phrase "*hematic cardioplegia*" is found in 3 Spanish articles. The standard expression "*blood cardioplegia*" can be found in more than 850 citations.

Truncation - Used to search all terms beginning with a given text string. The asterisk is used as truncation symbol: e.g. *peroxi** will find all terms that begin with peroxi- (peroxide, peroxisome, peroxisomal, peroxidase, etc.). PubMed searches for the first 600 variations of a truncated term. If a truncated term, e.g., *cardio**, produces more than 600 variations, PubMed displays a warning message ("Wildcard search for [term*] used only the first 600 variations. Lengthen the root word to search for all endings").

Search field tags - Terms may be qualified using PubMed's search field tags. Tags should be enclosed in square brackets and follow the term. In Table 3 are listed the most commonly used search field tags.

With the "language" tag [la], the user can filter the retrieved citation language:

Example:

osteosarcoma & eng[la]

Only the articles published in English (not necessarily by native English speakers) are displayed.

osteosarcoma & eng[la] & UK[ad]

Only the articles published in English by authors working in the United Kingdom are displayed.

An interesting publication type heading is "dictionary". This heading exists since 1991 and describes a citation "containing a list of words - usually in alphabetical order - giving information about form, pronunciation, etymology, grammar, and meaning."

Example:

biology & dictionary[pt]

The first citation is a "Glossary of molecular biology terminology" (free full-text online).

Continued from page 24

Limits

[<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?CMD=Limits&DB=PubMed>] - Used to quickly refine the search through the pull-down menus:

- **Fields** to search in
- **Only items with abstract** (checkbox)
- **Publication types**
- **Languages**
- **Publication dates**
- **Subsets:** this is particularly useful to limit the search to a specific topic (AIDS, cancer, bioethics, complementary medicine, history of medicine, space life sciences, toxicology) or journal grouping (dental, nursing or core clinical journals).

Results

The search results are listed in reverse chronological order (last in, first out) and by default they are displayed in batches of 20 in the Summary format (author, title and source information). Citations whose title/abstract have been translated into English are displayed in square brackets and the original language is indicated in the second line.

Example:

[Thyroid anaplastic tumor: our experience]
Chir Ital. 2003 Nov-Dec;55(6):835-40. Italian.

Clicking on the author's name hyperlink will display the abstract (where present); alternatively the user can check the desired citations, select "Abstract" from the "Display" pull-down menu and click on the "Display" button. The fastest way to see all the abstracts listed on a page is to select "Abstract" from the "Display" menu and click on the "Send to" button: abstracts will be displayed in textual format and they can be searched using the Internet Explorer search function (CTRL-F). To save the entire set of search results to a file select File from the "Send to" pull-down menu and click on the "Send to" button.

An icon to the left of the retrieved citations indicates the abstract availability: only icons with horizontal lines indicate the presence of an abstract. Icons with a colored banner indicate the presence of a free full-text article (from the publisher site [green banner] or from PubMed Central [orange/green banner]).

About a quarter of the database citations is without an abstract. To retrieve only the citations with an abstract add *hasabstract* to the query (e.g. lupus & CMV &

hasabstract). To retrieve only the citations linked with free full-text articles use the "*free full text*" subset (e.g. heart[majr] & "Radionuclide Imaging"[mh] & free full text[sb]).

MeSH Dictionary

The Medical Subject Heading (MeSH) is the NLM's controlled vocabulary thesaurus. It consists of sets of terms naming descriptors in a hierarchical structure that permits searching at various levels of specificity.

MeSH contains more than 22,000 terms and is updated annually to reflect changes in medicine and medical terminology. MeSH terms are arranged hierarchically by subject categories with more specific terms arranged beneath broader terms.

Two MeSH search interfaces are available online:

- **MeSH Database**
<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=mesh>: it is integrated into the PubMed web interface and it suggests terms by way of an algorithm that compares letter combinations (useful when entering misspelled terms).
- **MeSH Browser:**
<http://www.nlm.nih.gov/mesh/MBrowser.html>

A MeSH item contains a definition of the term (scope note), links to other related terms, previous less specific equivalent terms (previous indexing), synonyms (entry terms) and other data.

Example of a MeSH entry:

http://www.nlm.nih.gov/cgi/mesh/2004/MB_cgi?term=STROKE

MeSH terms are useful to retrieve citations about a specific topic and exclude confusing results.

Example:

The meaning of an acronym can be very different in different contexts. The abbreviation BBB means both Blood-Brain Barrier and Bundle Branch Block. If the context is known, a PubMed search will quickly shed light on the puzzle.

"Electrocardiography"[majr] & BBB
"Nervous System"[majr] & BBB

PubMed Central

<http://www.pubmedcentral.nih.gov/>

Continued from page 25

It is the NLM's digital archive of life science journals. To date more than 80 journals with full-text articles are freely available online. The advantage over PubMed is that the full-text (not only abstracts) is indexed and searched.

Example:

VIP & Radioligand-binding & hypertension

This query does not produce results on PubMed (up to March, 2004). On PubMed Central one full-text article is found.

Citation Matcher for Single Articles

<http://www.ncbi.nlm.nih.gov/entrez/query/static/citmatch.html>

This is a fill-in-the-blank form that allows the user to enter partial journal citation information to locate a single citation, or citations from a particular volume or issue of a journal. This feature allows to quickly find a single abstract: this is extremely useful when translating texts quoting other articles. Often a look at the abstract of the original article may elucidate a phrase with unclear meaning or may help to correct misprints.

Bookshelf

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Books>

The Bookshelf is a growing searchable collection of biomedical books. To date the bookshelf contains more than 30 textbooks on various subjects (neurochemistry, endocrinology, biochemistry, genetics, immunology, surgery, etc.).

The textbooks can be searched globally by typing the keywords into the PubMed search box. Alternatively, the

user can select the desired textbook by clicking its title and search or browse its content.

The bookshelf can also be accessed from an article abstract: just click "Links" on the right to open the Links pull-down menu and then click the "Books" link. The abstract page will reload and the words or expressions found in the books will appear as hyperlinks pointing to the corresponding textbook(s).

I tried to describe the most useful functions of this outstanding resource. However, the NLM and the National Institutes of Health freely distribute many other resources such as TOXNET (toxicology databases), ChemID Plus (chemical dictionary), MEDLINEplus (selected information for health consumers, in English and Spanish), ClinicalTrial.gov (information on clinical trials), Cancer.gov (oncology information and terminology). These will be the topic of other articles on this newsletter.

Reference websites

PubMed Help

<http://www.ncbi.nlm.nih.gov/entrez/query/static/help/pmhelp.html>

PubMed Tutorial

http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1001.html

MeSH dictionary

<http://www.nlm.nih.gov/pubs/factsheets/mesh.html>

http://www.nlm.nih.gov/bsd/pubmed_tutorial/m1009.html

NLM Training Manuals and Resources

http://www.nlm.nih.gov/pubs/web_based.html

Possible uses of the PubMed database

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Find the meaning of a word/phrase/expression • Check the usage of a medical term | <ul style="list-style-type: none"> • Check a reference citation • Contextualize abbreviations and acronyms |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|

Table 1 - Boolean operator queries

Stent	21400+ citations
Stent AND Gianturco	350+ citations
Stent AND Gianturco AND (Palmaz-Schatz OR Multilink) Note: parenthesis are not optional here. Expressions in parenthesis are searched first and then the other keywords are processed together with the results retrieved. In this example, without parenthesis you would have found more than 100 citations.	43 citations
Stent & Multilink NOT Palmaz-Schatz	33 citations

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Table 2 - Search field tags (A complete listing of available field names, tags, and brief field descriptions can be found in the PubMed Help:

<http://www.ncbi.nlm.nih.gov/entrez/query/static/help/pmhelp.html#SearchFieldDescriptionsandTags>).

Tag	Description	Examples
Affiliation [AD]	Institutional affiliation and address (including e-mail address) of the first author of the article as it appears in the journal.	"Johns Hopkins"[ad] Italy[ad]
Author [AU]	One of the listed article authors	Sgarbossa EB[au]
Journal Title [TA]	The journal title abbreviation, full journal title, or ISSN number. If a journal title contains special characters, e.g., parentheses, brackets, enter the name without these characters (e.g., enter J Hand Surg [Am] as J Hand Surg Am.)	J Biol Chem[ta] Chest[ta] 0021-9258[ta]
Language [LA]	The language in which the article was published. You can either enter the language or enter just the first three characters of most languages, e.g., chi [la] retrieves the same as chinese [la]. Exception: jpn [la] for Japanese.	Spa[la]Ita[la]Ger[la]
MeSH Major Topic [MAJR]	A MeSH term that is one of the main topics discussed in the article.	Urology[majr]
MeSH Terms [MH]	A MeSH term that is used to describe the subject of each journal article in MEDLINE.	Stents[mh] Atherosclerosis[mh]
Personal Name as Subject [PS]	Use this search field tag to limit retrieval to where the name is the subject of the article.	Varmus h[ps]
Publication Type [PT]	Describes the type of material the article represents. A complete listing of available publication types can be found in the PubMed Help: http://www.ncbi.nlm.nih.gov/entrez/query/static/help/pmhelp.html#PublicationTypes <u>Reviews</u> are useful articles for the translator who wants to know more about a topic. To find free full-text reviews use: review[pt] & free full-text[sb]	Clinical Trial[pt] Dictionary[pt] brachytherapy & free full text[sb] & review[pt]
Substance Name [NM]	The name of a chemical discussed in the article.	Aspirin[nm] Levonorgestrel[nm]

IT'S NOT JUST THE FAT BUT WHERE IT'S AT -

Pear-shaped people have more trouble losing weight from their hips, thighs and posterior, specifically. But it's the apple-shaped folks who need to redouble their efforts. Researchers have shown that carrying extra pounds around the belly and upper body - the apple shaped figure- increases the risk of hypertension, heart disease, stroke, diabetes, and cancers of the breast, ovary and prostate.



The two deposits of belly fat - the subcutaneous layer and a deeper one - both function like mini organs, with blood vessels, connective tissue, immune cells and the ability to store and secrete hormones. The enzymes and fatty acids released by this fat increase the risk of diabetes,

hypertension and high triglycerides.

First, scientists found the hormone leptin, which regulates appetite, inflammation and reproduction. Then the hormone interleukin 6, which tells the liver to release more triglycerides and takes the brakes off glucose production.

Such complex biochemical activity belies the fact that fat has its place, biologically speaking - its been a key to biological survival for about 50,000 years. Being able to store fat in the belly was a hedge against starvation while immune cells in the fat protected against infection. But most of us in modern cultures suffer the consequences of simply too much of what we like to eat.

A Snapshot View of the American Medical Writers Association

There are two things you should know about AMWA: it isn't just for Americans-our members are from 26 countries-and it isn't just for medical writers. Our 4,700 members include many types of biomedical communicators, including reporters, public relations specialists, editors, statisticians, audiovisual experts-and even translators! Our membership is open to anyone (including students) interested in professional advancement as a biomedical communicator.

Established in 1940, AMWA's mission is to promote excellence in writing, editing, and production of printed and electronic communications, whether aimed at professionals, regulatory agencies, or the public. Membership in AMWA has many advantages; here are just a few:

- **Continuing education**-AMWA offers two programs: the Core Curriculum and the Advanced Curriculum. The curricula comprise workshops given at the annual meeting or, throughout the year, at regional chapter conferences. Workshops are taught by AMWA members who are experts in their fields and who enjoy sharing their expertise and learning with their colleagues. The Core certification can be achieved by taking workshops in the areas of writing/editing; pharmaceutical; public relations, advertising, and marketing; education; or freelance, along with some basic, required workshops. Advanced certification gives experienced biomedical communicators further opportunities to broaden their skills. Distance learning, a new venture for AMWA, will provide another option for professional growth for those who do not attend the annual or regional conferences.

- **The AMWA Journal**, published quarterly, is a forum for articles on a wide variety of topics in biomedical communications, news about the organization, and reports of meetings of interest.

“AMWA's mission is to promote excellence in writing, editing, and production of printed and electronic communication”

- **Networking** is important in any professional organization, and AMWA is no exception. The annual meeting includes not just professional education, but also meal events, social activities, and mentoring get-togethers. In addition, our 20 regional chapters, located throughout the United States and Canada, hold regular meetings at which members can socialize, learn, and meet new members.

- **The AMWA Web site** (www.amwa.org) offers members a freelance directory, job bank listing, links to chapters, a bulletin board, information on obtaining AMWA publications, and useful links for biomedical communicators, among other features. Browse the site and see what's there for you.

The year's annual meeting, from September 18-20, 2003, in Miami, Florida, included a record number of workshops (84), dynamic guest speakers who are prominent in the field of biomedical communications, and lots of opportunities to meet the friendly members of AMWA. We always welcome new faces! Contact AMWA headquarter at info@amwa.org or 301.294.5303 for more information.



ATA Professional Development Seminar

**Medical Translation and Interpreting
Crowne Plaza Northstar
Minneapolis, Minnesota
July 10, 2004**

**To learn more, click on:
<http://www.atanet.org/pd/medical>**

A ver qué se cuece en los pasillos ..

1. aire - being exposed to a rush of air, "draft", particularly a cold one, as cause of illnesses such as earaches, muscular spasms and facial paralysis. The latter, a 7th nerve facial palsy, is a recognized medical cause-effect relationship. When cold air is believed to be involved in the causation of symptoms, the therapeutic approach usually involves warmth. A child with an earache due to aire will receive warm oil drops to the ear canal. Muscular aches will bring forth the practice of "coining" - the rubbing of the skin over the painful area with a warm coin or medal. Similarly, the practice of "cupping" - the use of warm suction cups over the affected area intending to extract the causative cold air. These practices cause bruising and skin markings similar to those usually associated with physical abuse in the US, an observation that has caused misguided suspicions and even formal accusations to the greater distress of unwary parents and family members.

2. ataque - similar to a "hysterical" attack. A culturally condoned emotional response to a great shock or bad news characterized by hyperventilation, closed eyes, hand flailing, crying or screaming or trembling and other bizarre behaviors. It is primarily seen in women but men can also express their distress that way.

3. susto - also known as sobresalto. Literally, susto is "a frightening experience", an event that dislodges momentarily the soul from the body and leaves the person vulnerable to any affliction, from back pain to gastrointestinal or respiratory difficulties. As with the post traumatic stress conditions we often see, it can mix a variety of psychological and physical complaints that otherwise have no apparent causation. Typically the person will tell his/her medical complaints adding that he/she believes it may well be the result of a "susto" experienced previous to the onset of symptoms.

4. frío en la matriz - literally "coldness of the womb" refers to a set of various disabling postpartum symptoms attributed to insufficient rest after delivery. Long after the usual period of recovery the woman is unable to care properly for the child or resume her usual household chores. As well, she remains 'cold' to the sexual advances

of her husband. The fact that attentive family members and neighbors take up the disabled mother's chores often prolongs recovery.

6. embrujado - means a hex or a spell which is believed to be the cause of the signs or symptoms presented by the patient. In the supernatural arena a brujo or bruja, witch / sorceress, is capable of casting spells intended to give rise to problems of various kinds on the person for whom the hex is intended. At a Miami dermatology clinic associated with the UM medical school the majority of skin problems that local Haitians develop are thought by the patients to be due to hexes or spells cast on them.

7. filaria - it is not unusual to refer to any chronic festering skin condition, particularly in the legs, as filaria - not necessarily having the true disease known as lymphatic filariasis. Lymphatic filariasis is endemic in tropical areas of the world where adult worm parasites (*Wuchereria bancrofti* or *Brugia malayi*) circulate in the lymphatic vessels leading to inflammation, dilatation and dysfunction. These vessels dilate and the overlying tissues over the legs and genitals swell and get secondarily infected. Thus any longstanding active skin condition on the legs is bound to be called filarial.

8. privado/ caer privado - privado means private. To "become private", *caer privado*, means to sustain a momentary loss of consciousness.

9. zafarse - it is common in Latin America to use the word *zafarse* which literally means "to loosen up" e.g., *se zafó el nudo* / the knot loosened up, referring to an acute dislocation or displacement of a joint. "Se me zafó la espalda", literally, my back went out of place would be the complaint of sudden low back pain.

10. gambado / gambao - from gamba, not the shrimp but the legs), Fr. *jambe*. Term used for somebody who is bowlegged.

Gracias a nuestro colega Roberto Guzman por sus contribuciones a Frases médicas.

Medicine permeates our society in many ways. Lydia Razran Stone, Editor of the Slav File, Slavic Language Division newsletter, and member of the Medical Division, submitted this list of common American idiomatic expressions and sayings of a medical nature. We have added some commentaries, as appropriate. Members and readers are invited to submit to her any other similar expressions for future use. Thanks, Lydia.

- **band-aid solution** - a small, temporary or ineffective solution for a major problem
- **cancer stick** - a cigarette
- **chill pill** - an antidepressant. To "chill out" is colloquial jargon for relaxation, stress reduction
- **ambulance chaser** - a personal injury lawyer or his representative who follows ambulances that take accident victims to emergency rooms and offers unsolicited business cards to patients and family members planting the notion of a possible malpractice suit. (A reviewer wondered if other countries have ambulance chasers. Division members, please let us know via our listserve).
- **cough up**
- **crippling debt**
- **dead on arrival (DOA)** - in business circles refers to suggestions or proposals which will predictably be rejected outright without any consideration from management
- **doc in a box**
- **Dr. Feelgood** - a reference to mental health professionals
- **fever pitch** - blushaolyn
- **bitter pill**
- **avoid like the plague**
- **anemic** - anything that is weak e.g., effort, proposal, intentions, character, imagination
- **abortive effect**
- **fatal error**
- **fractured sentence**
- **a fungus among us**
- **growing pains**
- **grow like a cancer**
- **reopen old wounds**
- **wallet biopsy** - check out how much money one has
- **to nurse a drink** - to consume an alcoholic drink very, very slowly
- **to nurse a grudge** - to keep a grudge alive, to sustain it
- **bitter pill**
- **to go under the knife**
- **foot-in-mouth disease** - refers, of course, to someone prone to say the wrong thing. It is a take from the hoof-and-mouth viral disease of cattle and swine. There is, however, a hand-foot-and-mouth viral disease of humans unrelated to the animal variety, most common in children.
- **to cramp someone's style**
- **a cure for whatever ails you**
- **jaundiced eye** - Most often, says a reviewer, it refers to a questioning, probing, undetached attitude, not readily accepting the obvious answer. Related, not necessarily equivalent, meanings include prejudice, favoritism, prejudgment, bent, bias, partisanship, preconception.
- **Jewish penicillin** - good ol' chicken soup. (Therapeutic value has not diminished as a result of the recent epidemics of chicken flu.)
- **ill at ease**
- **infectious or contagious laugh**

Continued from page 30

- **to need one's head examined**
- **a myopic view of something** - shortsighted, that is
- **pain in the neck or butt**
- **mental health day** - a common practice in business to allow employees a day of rest and relaxation to 'recover' after. high pressure, long hours of work.
- **house calls - not by a doctor or nurse ...**
- **a royal pain**
- **quit bellyaching** - moaning and complaining, that is.
- **doctor it up - to improve it**
- **learn / know by heart**
- **see eye to eye**
- **have cold feet**
- **sawbones** - a surgeon, not necessarily an orthopedic one.
- **a shot in the arm** - a stimulating, uplifting word, gesture, event
- **sick and tired**
- **sick as a dog**
- **sick joke**· **What can't be cured must be endured.**
- **time heals all wounds.**
- **to have a cat 'doctored'** - a female cat (a "queen", if you didn't know) neutered
- **verbal diarrhea**
- **white coat hypertension**

**Lydia Razran Stone can be reached at
lydiastone@verizon.net**

From Fat to Fit (to Fault?)

by Elena Sgarbossa, MD

To fight the US obesity epidemics, physician and attorney Michael Applebaum developed Fit to Parent™, a fitness program that helps parents to raise healthy children.

Applebaum holds five fitness credentials and is keenly aware of the fact that the main predictor of childhood weight problems is parental unfit. If both parents are unfit, for example, their child has an 80 to 90% chance of becoming overweight or obese. One in three unfit children will become diabetic during their lifetime, says the CDC. Other physical and mental illnesses may also harm or kill the children of unfit parents.

This is why Applebaum decided to target at-risk families. Preventing obesity -reasoned Applebaum-should spare children and their families of the great health, social and financial burdens of treating excess weight and other problems later.

What Applebaum did not expect was the type of response he received from parents of overweight children. Parents were mobilized, yes -but in an unforeseen direction. They started contacting Applebaum to ask him for help in suing their children's pediatrician for allowing the children to become obese! Some families also wanted to sue the mother's obstetrician or the family physician.

Parents apparently reacted to the alarming ring in Applebaum's press release, titled "Millions of Children are Harmed and Killed by Unfit Parents." <http://www.prweb.com/releases/2003/10/prweb87136.htm>. From it, parents concluded that they had not been adequately advised regarding the risks that their lifestyle would pose onto their children. So they became upset with their physicians.

Applebaum is doubly concerned. On one hand, the number of overweight and unfit parents in the US is well into the millions. This makes the number of potential plaintiffs astronomical. On the other hand, says Applebaum, "apparently the message of parental obesity and their effects on children is not getting through".

Sources: PR Web™ and Physicians Practice (3/2004).

CP Language Institute, Inc. Launches Medical Interpreting Company

CP Language Institute, Inc., a translation agency located in midtown Manhattan with over 20 years of experience, has launched a new affiliate: CP Manhattan Hospital Interpreters. The new company boasts a website, www.hospitalinterpreter.com, and two of the most prestigious hospitals in New York City -Columbia Presbyterian Hospital and Weill Cornell Hospital Center-amongst its clients.

CP Manhattan Hospital Interpreters provides medical interpreters of over 50 languages to area hospitals in order to bridge the linguistic and cultural gap between healthcare providers and their patients. New York City hospitals serve an enormously diverse patient population: according to the US Census Bureau, in the year 2000, 41.9% of Manhattan residents reported speaking a language other than English at home, 29.4% were foreign born, and of those, 27.1% were born in Asia and 48.4% were born in Latin America. More importantly, of those who speak a language other than English at home, **20% reported speaking English less than "very well."** This indicates that at least 20% of New Yorkers who speak a language other than English at home would be considered LEP (Limited English Proficient) patients and therefore, by law, require the services of professional medical interpreters in the healthcare setting.

In the outer boroughs of Manhattan, the percentage of residents who report speaking English less than "very well" is even higher: 27.8% in Queens, 25.2% in the Bronx, and 23.9% in Brooklyn.

New York City hospitals have traditionally confronted the issue of providing healthcare for LEP patients by establishing 'language banks' (a list of hospital employee-from housekeeping personnel to nurses-who speak a foreign language, and who are by and large untrained and unqualified as medical interpreters), volunteer interpreters, who receive little or no training and are often not properly screened to ascertain if they are truly qualified, and healthcare providers themselves whose foreign language skills tend to be inadequate, at best. These approaches can lead to inadequate health care for LEP patients, not to mention violations of state and federal laws regarding the right of LEP patients to qualified interpreters.

CP Manhattan Hospital Interpreters strives to provide LEP

patients with the highly trained and qualified interpreters they need in order to receive health care on par with English-speaking patients, and to provide hospitals with the professional and reliable service they demand.

CP Manhattan Hospital Interpreters guarantees the following: **Confidentiality** of patient information, **Reliability, Professionalism** by adhering to medical ethics and protocols, **In-depth Understanding** of the work assigned, **Linguistic Competence** in both languages, **Accurate Interpretation** of both verbal and nonverbal aspects of what is being communicated, **Bridging** cultural and linguistic barriers, and **Impartiality** in the communication process.

In CP Manhattan Hospital Interpreters' effort to provide continuing education for its interpreters and to the community at large, it is now offering an intensive 40-hour Medical Interpreting Training course. The course is available to interpreters already employed by CP, as well as to any qualified applicant who wishes to improve his/her skills in medical interpreting.

The training course has been created and developed from the ground up by medical interpreters who have drawn on both their extensive experience in the field and in-depth research into the latest techniques and theoretical aspects of medical interpreting. The course includes the following materials: a comprehensive medical glossary in several languages that the students will be quizzed on each class and a student workbook covering much of the theoretical aspects that will be discussed in class, as well as homework questions on each chapter.

The following will be covered in the training course: extensive role playing practice during each class session, cultural competency, interpreting protocols, extensive study and practice of the Code of Ethics, the Incremental Intervention Model of the Roles of the Medical Interpreter, memory development exercises, legal issues, and much more.

CP Manhattan Hospital Interpreters invites you to contact them for more information and to enroll in the training course at: 212-246-2054. The first course began on Monday, July 28, and new courses will begin every four weeks.

Meet...John Kinory

Interviewed by Naomi de Moraes

John (also known to friends as Yoni) was born in Jerusalem and currently lives in the village of Steeple Aston, a few miles outside Oxford, England. His parents came from Hungary and he lived there for a while as a small child, hence his first language was Hungarian. However, from the age of 3 his first language has been Hebrew. The family spent a year in Vienna when he was 10, and there he learned German. That was where he started translating: his first "project" was translating the speech-bubbles in comic books - Mickey Mouse, Der Heitere Fridolin - into Hebrew for his younger brother, pasting the handwritten translations over the German. Later he started translating German books into Hebrew as a hobby, e.g. *Drei Männer im Schnee*. He translates professionally from English, Hebrew, and German into English and Hebrew.

John can be reached at translate@kinory.net His website is www.hebrewtranslate.net.

What is your educational background?

After 2 years at the Hebrew University studying physics and math, and after my national service, I decided to change direction and came to London to study scientific photography. After working at a physics research institute for a couple of years I started teaching applied photography, first in Jerusalem and then for several years in and around London. During this time I completed my physics degree with the Open University, obtained a postgraduate certificate in optical engineering from London University, and started teaching physics. I started translating professionally (while still a teacher) almost by accident, having met a translation agency owner who specialized in Hebrew. This became a full-time occupation a few years later, when I left teaching.

What kind of medical translation do you do?

Most of it relates to medical trials conducted in Israel and in German-speaking countries:

1. Investigator's brochures, patient information booklets, and consent forms (from English into Hebrew).
2. Ethics Committee decisions and correspondence (from

Hebrew and German into English).

3. Patient hospital records from Hebrew and German into English. This is the bulk of my work, and covers cardiology, oncology, gastrointestinal conditions, neurology, etc.

4. Occasionally, I translate medical records from Hebrew and German into English for insurance companies; and papers from Israeli and German medical journals for Anglophone researchers.

Do you do any interpreting?

I do consecutive and ad-hoc interpreting for Israeli delegations on site visits to England; for Israeli businessmen involved in negotiations and in arbitration proceedings; in the civil courts, e.g. family matters such as child custody and child abuse cases; in the criminal courts, e.g. fraud and assault cases. Only the court interpreting involves much of a medical nature, but I have occasionally interpreted for hospital patients.

Your education is in everything but languages and medicine. How did you become a medical translator/interpreter?

I got into medical translating by chance - pretty much the sort of thing that has happened to me throughout life. After a couple of years as a full-time freelance translator, desperately looking for work in the midst of the recession of the early 1990s, my first really big client arrived out of the blue: a large insurance company that was sitting on hundreds of outstanding Israeli patient files and needed to have them translated urgently. I worked with them at their offices, going through all the files over several months, one page at a time, and discussing their contents with their chief medical officer (a qualified medical practitioner). This allowed the company to decide what needed translating in detail (which I did over a period 2 years), and what could be summarized on the back of each page.

I find it humorous that something urgent in the early 1990s took 2 years to complete. These days, urgent means yesterday. But you must have learned a lot!

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Of course. We held constant, detailed discussions about terminology, since they spoke no Hebrew and I needed a technical explanation of the medical conditions involved. Israeli medical records can be a confusing mixture of (i) technical Hebrew terms, some of which are everyday words used in a technical sense but others are strictly technical; (ii) Latin terms written sometimes in Hebrew and sometimes in Latin characters, used randomly within the same document; and (iii) adopted / adapted English terms written by Russian-speakers just getting to grips with Hebrew (during certain periods in the past, they tended to be German- or French-speakers). Sometimes such new immigrants misspell the Hebrew to the extent that it becomes almost unrecognizable. One can sympathize with their difficulty and admire their acquisition of a new language in adulthood, but it's also difficult for the translator. We had to dissect each sentence and understand it to make sense of the text, and that taught me a lot of medicine, at least relative to my starting point which was that of a moderately well-read but not particularly interested layperson. Now, of course, as a result of working in the medical translations field, I find medicine exciting.

This medical officer was very clever, knowledgeable patient, and an excellent teacher. Between us we approached it like an intellectual puzzle, and that has been my approach ever since: translating is exciting detective work. My late mother used to say that my work is not really a genuine profession, because I enjoy it too much. A typical example would be coronary vessels. In many of those texts, patients suffered from hitzarut which simply means narrowing, but I needed to discover that the technical term is stenosis. Elsewhere in the same text, it might say stenosis in Hebrew characters. Another example: Stent can be stent or tomkhan. Even the Hebrew terminology could be inconsistent: aorta can be vatin or av-orkim. When working into Hebrew, one has to decide which term to use, depending on the target-audience.

I also translate other texts: IT and telecommunications, legal texts, and have translated books on optics, educational theory, the history of economics-even poetry. Another book I worked on was the Hebrew edition of the Berlitz Phrasebook and Dictionary for Tourists.

You studied physics/math, then engineering. I did the same thing, but in reverse order. What do you think of your career in the humanities, rather than in science?

I have always liked having a foot in both camps. I have been translating and photographing since my early teens, taught photography at art college for some years, exhibited at several galleries and published in several art magazines. After obtaining my postgraduate certificate I became an undergraduate again with the Open University which is distance learning plus the occasional summer school, with excellent course units and TV/radio programs and nowadays also with teaching and conferences over the Internet); I have taken courses such as general philosophy, philosophy of science and so on. This year I am taking an astronomy course. I think I am an engineer rather than a scientist by temperament, though I love science. I want to make things: design and engineer and craft them. In my case the "things" are translations.

Do you sometimes feel a desire for more scientific work (and not just writing scientific words)? The pleasure of doing a calculation and knowing it is correct? In the humanities, every thing is shades of grey.

This is not so much the case in scientific translations. Even the economics book was very technical and precise, whether or not I agreed with the author's premises and chain of arguments and all of his conclusions.

I sometimes miss integrals, derivatives, and using my calculator for something other than my checkbook.

I fell in love with differential calculus in high school. I also get very excited about abstract algebra and complex analysis.

What is the most difficult part of translating material for medical trials? I did one of these last month, and found they loved to use acronyms without explaining them (could have been just an isolated case, though).

Hebrew is full of acronyms; even words such as school, factory, hospital, synagogue, abroad, report, negotiations, etc., are often written as acronyms (and sometimes, though not always, pronounced as such). But hospital reports do take this one step further. One simply has to get used to them, research them and so on. For example, 'contrast medium' would not be abbreviated in "normal" Hebrew writing, but it is an acronym in hospital reports. You get this in English, too (BP for blood pressure, for example), but it's much more extreme in Hebrew because of its

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propensity for abbreviations.

Hospital German is also a bit like that, which is more difficult because (a) Hebrew is an active language for me - I grew up speaking it; my German is passive - I only work out of German, not into it; (b) German is not as thoroughly oriented towards acronyms as is Hebrew. So, you have to research and discover that V.a. = Verdacht auf = Suspicion of [suspected MI/ renal failure/whatever].

There is also the challenge of making the text readable by the general public, no small task in a country with so many immigrants.

Very true, for example translating patient information packs into Hebrew as against ethics committee texts and investigator's brochures. The wording needs to be more colloquial and lay terms must be used. Israelis have a very varied linguistic background: their first language is very often Hebrew, of course, but can also be Arabic (and this includes both Jews and Arabs), Russian, English etc. Even when something is written for doctors, the reader may be a neurologist whose first language is Russian, and the wording becomes a fine exercise in tightrope-walking. In addition, I must cope with the handwriting, especially in hospital notes (though many of them do get typed up). Some are written literally on the run, however literate the doctor may be; or written slowly, with lovely rounded letters, but often misspelled, by a native speaker of Russian who inserts Latin words (in Hebrew characters) when unsure of the Hebrew term. And even among native Hebrew speakers, using Latin terms in Hebrew texts has always been very common - with a variety of transliterated spellings!

Remember also that Hebrew has no "proper vowels". Therefore, an obscure term such as an unusual medication, when written in Hebrew with no vowels, can look like nothing on earth. If one letter is misspelled or the spelling is non-standard, you do have a problem (for example, there are two Ts in Hebrew, and either one could - in theory - be used to transliterate a Latin T; but on the other hand, P and F are the same letter). And even if the spelling is optimized, the first time you see (the equivalent of) FLBIQS you may not realize that it's Plavix (B can serve for V, and there is no X). But next time you know ...

What about patient hospital records? I find the lack of

context to be the most difficult element. You have numbers and acronyms, then one or two sentences.

Absolutely. I just do the best I can. And then there is also illegible photocopying and faxing.

Do you read medical literature to keep abreast of the field, or just look up procedures and terms when needed?

When would I have the time? I read the weekly USA-published Science News. I look up stuff on the Internet as and when needed, which is every day. I have daily contact with colleagues worldwide on German and Hebrew translators' lists (I run one of the latter myself, called Pie-Squared, with a virtual good colleague and friend called Sue Goldian), and we help each other.

I regularly translate Heb>Eng research papers from the main Israeli medical journal. For what it's worth, it does help me to keep up to speed with what's happening in modern medicine.

What do you think of the way the business of translation has gone? Do you deal mainly with direct clients, or with agencies?

Roughly 50/50. I started off working for agencies only, and over 17 years have built up, thanks to a huge marketing effort and even more luck, a portfolio of direct clients: various government agencies, several universities, medical institutions and a few commercial corporations, both within the medical field (e.g. pharmaceutical companies) and outside it.

How different are the different Germans? The two Portugueses, for example, are very different (we have subtitles on European Portuguese films here in Brazil).

On the whole, this is not a big issue. However, "Austrian" is close to Bavarian (what the dictionaries call "Southern German" - so very PC), and the two differ from Northern German to some extent: colloquialisms are often very different, and also the names of many fruit and vegetables: potato is Kartoffel in German, Erdapfel in Austrian; similarly for carrots, plums and many others. Furthermore, there are areas of Northwest Germany (the Friesian islands near Holland) that have a strong local dialect. I don't

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translate those, but Austrian/Bavarian issues do crop up a lot. Of course, my German was originally from Vienna, but is not so Viennese these days. Swiss German is VERY different: there are so many unique technical terms (especially financial ones) that I try to avoid doing Swiss.

I imagine you charge much more for Hebrew than for German. Do you translate both just to have a steady flow of work? Would just translating Hebrew fail to pay the bills? England does have a high cost of living.

Yes, I charge the highest rates into Hebrew (mostly Eng>Heb, and very rarely Ger>Heb); then Hebrew into English; then German>English. I do all these combinations both in order to have enough work (since Great Britain is expensive and there isn't really enough Hebrew to pay the bills), and also for the variety. I love the fact that on any given day I do small jobs and large jobs, a variety of topics and different languages. I think it helps me to stay mentally fresh and alert. Furthermore, doing Heb>Eng helps me keep up with evolving Hebrew terminology, and doing Eng>Heb serves the same purpose in the other direction. Therefore, I can do both directions because I do both directions.

Have you published the poetry you have translated?

Some of it. In my late teens I met for coffee with the Israeli poet T. Carmi whose work we had studied at school - I had a brilliant Hebrew literature teacher (and also a superb English teacher) - and asked him if I could publish my translations of his poems into English. I thought he'd be impressed; I also assumed that he would have heard his parents speak Russian or Polish at home, and be even more impressed by my English being better than his). Turned out he was born in New York. He was very kind and even praised some of my linguistic solutions, but preferred me not to publish them because the copyright was held by Penguin: some translations of his work had already appeared in the Modern Poets series (which is true - they were translated by Dom Moraes). Anyway, I think he was letting me down gently.

In recent years I have had some commissioned poetry translations published, but only few and far between. In 2000 I did the Hebrew version of a poster with a millennium peace poem by Heathcote Williams, the poet who wrote about the song of the whales. And occasionally

I translate for poets who contact me through my website, e.g. for inlay cards for their CDs or to add text to their paintings and suchlike. Even for tattoos, believe it or not.

Do you miss teaching? Would you go back to teaching if you could not be a translator for some reason? Teaching (at least here in Brazil) pays poorly, but I learn a lot from my students.

Yes, it pays poorly here too. No, I've done that but don't miss it. It was great fun at the time, very exciting and educational (and quite stressful and frustrating at times), but that was in a different life.

Hobbies?

Photography, and amateur theatre. Last year I was a haughty footman in Cinderella, a traditional British panto, and have just finished working on a production as assistant director for the first time

Do you speak and read Hungarian? Have you ever thought of translating Hungarian?

My Hungarian is that of a 3-year old. I can understand about 25% of what people say if they speak slowly; I can read laboriously by sounding every letter, stopping and thinking about it, and I may understand about one-third if the text is simple, e.g., a daily newspaper. It doesn't happen much nowadays, but there was a time when some translation agencies insisted I specify one mother-tongue in order to join their database, and that would be my only target language. I used to leave that question blank, and they would phone me to ask about my mother-tongue. The standard script would go like this: JK: "How do you define mother-tongue?" TA: "The language you learned from your mother." JK: "OK, in that case it's Hungarian." TA: "Shall we put you down as a translator into Hungarian, then?" JK: "No, I can't even translate out of Hungarian." It used to drive them nuts. Sometimes I left them with a free choice between Hebrew and English, and I could almost hear them chewing their nails.

What are your three favorite Medical references?

The Carta Dictionary of Medical and Health Terminology is my first port of call for any Eng<>Heb terminology questions. It's very good, and by now also full of marginal

Continued from page 36

annotations as a result of constantly reading Hebrew and English medical texts and thanks to regular discussions with colleagues.

The M-T (medical terminology) list on Yahoo, which has some very knowledgeable and helpful members, is excellent for Ger>Eng questions. Normally, if I am unsure about any German>English terms I do a Google search first and that resolves 60% of all queries within seconds. The other 40% are usually solved on M-T.

For pharmaceutical terms, I check the British National Formulary (or pharmacopoeia) which helps with most problems such as ambiguous Hebrew spellings of drugs in Israeli hospital records.

Do Medications Really Expire?

Does the expiration date on a bottle of a medication mean anything? If a bottle of Tylenol, for example, says something like "Do not use after June 2000 and it is now June 2004, should you take the Tylenol? Should you discard it? Can you get hurt if you take it? Here's the story.

First, the expiration date, required by law since in the US since 1979, specifies only the date the manufacturer guarantees the potency and safety of the drug - it does not mean how long the drug is actually "good" or safe to use. Second, medical authorities uniformly say it is safe to take drugs past their expiration date - no matter how "expired" the drugs purportedly are, Except for possibly the rarest exceptions, you won't get hurt or certainly not get killed. Third, studies show that expired drugs may lose some of their potency over time, from 5% or less than 50%. Wisdom dictates that if your life does depend on an expired drug you should get it refilled - better safe than sorry, says the cliché. But if your life does not depend on an expired drug- such as that for headache, hay fever or menstrual cramps- take it and see what happens. Chances are you will feel better. If its only placebo, then better placebo than pain.

Excerpted from Medscape online
By Dr. Thomas A. Kramer

All births are not live...

The term **live birth** came recently to attention as a possible redundancy in a **Certificate of Live Birth** since the customary Spanish version *Certificado (o Partida) de Nacimiento* does not specify live or not. Besides Live Births (*Nacido Vivo*) there are Stillbirths (*Nacido Muerto*) and **Fetal Deaths** (*defined as death beyond 20 weeks of gestation*). For all of these, reporting is required. There is also a **Certificate of Birth Resulting in a Stillbirth** granted in at least 10 States to satisfy the psycho-social issues of women whose pregnancies unfortunately did not end in motherhood.

Expanding on the subject, we find that while most full term births are live, some are stillbirths, born dead. Few stillbirths occur during labor; most stillborn babies die before labor begins. A **neonatal death** is one that occurs within the first week of life. A **perinatal death** is one that takes place ---between 28 weeks of pregnancy and 7 days postpartum, the **perinatal period**. **Abortion** is a medical word meaning premature termination of pregnancy, spontaneous or induced. Spontaneous abortion, however, is more often called **miscarriage**.

Birth rate refers to the number of live births per 1000 population per year. Infant mortality rate is the number of infants that die in the first year of life per 1000 live births (birth rate).

Contributor Alyosha Saari adds: "This matter goes beyond the academic or statutory. Infant mortality rate, under five mortality rate, fertility rate, prenatal mortality ratio and rate require precise statistics. In a "developing" country situation these rates should gradually decline until, if all goes well, they hit what might be called a plateau close to developed country standards. Nor is the concept as abstract as it may seem to be and only reserved for remote international organizations since vital statistics offices are the primary source for calculating these rates (direct method) and interview surveys are the secondary source (indirect method), so that, at the grass roots, so to speak, everyone has to understand what a live birth means, however gruesome it may be for a mother who has actually lost a child to report what has happened and contribute to determining her country's ranking in the international pecking order, which of course is of little benefit to her. The term in Spanish is "*nacido vivo*", whether in statistics or certificates, I have never seen "*nacimiento con vida*".



Next Issue...

History of Medicine, Part II
 Who Cares? - The nursing profession.
 Pain - The Fifth Vital Sign
 Resources - Toxicology and Chemistry

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Pitfalls and Caveats
 Glossarium
 Bits and Pieces
 Frases médicas ..

Others

How Did You Do?

Answers to Eponyms match from page 21.

1 - d	6 - g
2 - f	7 - c
3 - b	8 - f
4 - a	9 - h
5 - e	10 - i

Answers to Discoveries match from page 21.

1 - b	6 - c
2 - a	7 - e
3 - j	8 - h
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5 - f	10 - i

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