The banks with the help of aromas in the automated banking centres create the ambiance of peace and wellness, and even aromatise the check books.

The maritime, air and railway transport, and even the public transport make no exception. The Paris subway, being the first in this area, for several years already has been using the Aroma technologies to create a high quality customer service and spraying the aromas in the subway trains and stations. Two goals are reached simultaneously: unpleasant odours are neutralized and a favourable ambiance eliminating the stress during the rush hours is created.

Aroma is used in the interior design of buildings, stores, public places, conference halls, hotels, movie theatres and other places, enhancing their style with an aroma corresponding to the design and image. Different aromas may be used in spaces conceived for different usage.

The aroma of lilies may reign in the hall, the smell of ripe grapes in the other rooms, the aroma of Amazonia in the lavatory. Thus three different tasks are solved simultaneously: the unpleasant odours are neutralized, the fine interior is accentuated and an auspicious environment for customers and visitors created.

The Aroma marketing along with the price, quality and the brand name becomes a means of increasing of the competitiveness of the enterprise.

## NANOTECHNOLOGY AND MEDICINE

Ravluk L.U., DM-41.

Nanotechnology medicine is the science and technology of diagnosing, treating and preventing disease and traumatic injury, of relieving pain, and of preserving and improving human health, using molecular tools and molecular knowledge of the human body.

Nanotechnology medicine means the employment of molecular machine systems to address medical problems, using molecular knowledge to maintain and improve human health at the molecular scale.

Nanotechnology medicine is also the comprehensive monitoring, control, construction, repair, defense, and improvement of all human biological systems, working from the molecular level, using engineered nanodevices and nanostructures.

Scientists are working now to create novel nanostructures that serve as new kinds of drugs for treating cancer, Parkinson's and cardiovascular disease; to engineer nanomaterials for use as artificial tissues that would replace diseased kidneys and livers, and even repair nerve damage; and to integrate nanodevices with the nervous system to create implants that restore vision and hearing, and build new prosthetic limbs.

In addition to medical treatments, the report examines several compelling opportunities for significant, widespread benefits from the technology, including nanotechnology's ability to address the energy crisis and demand for clean water.

Scientific understanding through the millennia has come from studying things first as they present themselves in the natural world and then from studying and understanding their subcomponents at ever smaller scales and finer levels of detail. In physics, this progression of scientific discovery eventually led to the concept of the atom, which was long thought to represent the smallest indivisible particle in nature until the discovery of subatomic particles: electrons, protons, and neutrons. Now we know that these subatomic particles are also further divisible into muons, mesons, quarks, and perhaps finally strings.

Having arrived at a "molecular plateau," the question logically arises about where bioscience will go next. Two directions of study that both rely heavily on the findings in molecular biology are emerging as particularly

interesting new opportunities.

First, the emerging discipline of "systems biology" will exploit knowledge of molecular structure to build better understanding of cell function and organ function from the "bottom up" and from the "top down." That is, physiologic processes that were studied historically at progressively smaller scales will now be studied again by starting with their smallest components. In some sense, this represents a "U-turn" in scientific inquiry. It is strongly anticipated that by using information garnered at the molecular level, scientists will achieve improved understanding of function at larger scales than was previously possible. Second, the emerging discipline of "nanotechnology" is another logical outlet for biomedical knowledge at a molecular scale.

While medical science is undoubtedly still years away from this futuristic vision, the momentum necessary to fuel progress in

nanotechnology is definitely present.

Zolotova S.G., adviser