

NANOTECHNOLOGY RESEARCH SEEKS SUPPORT FROM EXECUTIVE YUAN

Nanotechnology is to be the driving force of industrial development in the 21st century. The newly established Nanotechnology Research Center promises to become the brightest star of Tamkang University. Last week the Center submitted its research proposal to the Executive Yuan in a bid for a large grant from the NT\$1,000,000,000 Promotion Plan of International Competitiveness of Higher Education.

TKU' s nanotechnology research team consists of over thirty experts from the Departments of Physics, Chemistry, Chemical Engineering, Mechanical and Electro-Mechanical Engineering, Electrical Engineering, and Aerospace Engineering. The team is subdivided into three groups: materials science, nano physics, and biomaterials. Prof. Chen Kan-nan, dean of College of Sciences and director of Nanotechnology Research Center, has announced plans to conduct large-scale advanced integrated research and to seek governmental support.

Prof. Chen says that the main task for the Center at present is to submit, in three months' time, at least three large-scale integrated research plans, with a view to win a grant of NT\$180,000,000. The grant will go to the purchase of large pieces of equipment such as a transmission electronic microscope.

Since its establishment, the Center has combined several research areas in life science and submitted to the Executive Yuan large-scale research projects on double-stranded helical supramolecule (for use in anti-cancer drugs), and on porous polymeric membrane (for use in grafted membrane for anti-coagulant and in membrane for neuron culture). Moreover, the

Center' s research into biosensor has been outstanding, with several papers published in international journals and research findings patented in the ROC and the USA. One of the patented techniques has been transferred to industry for product development.

At present the Center holds regular forums on nanotechnology for team members to present their latest research results. Prof. Chen describes the forums as an indirect way of putting extra pressure on the members, who need to work on their knowledge about nano science in addition to their own research. Furthermore, the forums allow the members to be familiar with each other' s research interests and directions. Prof. Chen believes that, compared with working solo, working in an interdisciplinary context makes the research more comprehensive. The nano team' s pattern of cooperation, whereby members provide each other with their particular expertise, is an experience more precious than the actual research results. Prof. Chen welcomes those interested in this technology to join the team.

2010/09/27