University of Connecticut
Institute of Materials Science

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Office of the Director

Testimony to Connecticut Legislature Commerce Committees
Relative to FY08 Raised Bill No. 551 on Nanotechnology
March 4, 2008
Harris L. Marcus,
Chair of UCONN Nanotechnology Steering Committee

This testimony is written in full support of the State Initiative on Nanotechnology. UCONN at Storrs has almost 60 faculty involved in nanotechnology research primarily in CLAS and the SOE as well as other faculty operating at the UCHC. The Institute of Materials Science (IMS), which houses much of the instrumentation available for research needed for nanotechnology, is fully committed to work with the State in promoting research, development and commercialization of nanotechnology. New state-of-the-art instrumentation is required to expand our capability to allow the State to be truly competitive in moving forward in nanotechnology as well as the additional staff necessary to accomplish this. IMS works with approximately 40 companies in the State making our present instrumentation available to address critical materials problems not easily addressed commercially.

The new capital investment in nanotechnology related instrumentation will not only allow us to be more competitive for research funding but will allow us to help address critical issues to industry in the development of nanotechnology. Areas where the proposed instrumentation will impact include catalysis that plays a major role in fuel cell technology, environmental remedial issues including reduction of carbon dioxide and a wide range of nanomaterials processing and fabrication issues. Overall nanotechnology will be more and more the enabling technology for many facets of industry from medical related instrumentation and prosthetics, drug design, sensor technology, electronics and photonics, structural materials and a range of other technologies. All of these play a key role in the long term economic stability of Connecticut and in supplying high technology employment opportunities within the state that will assist us in keeping our highly trained work force, Our efforts and ability to address these myriad of technical and social issues will also be greatly enhanced by bringing in Eminent Faculty in Nanotechnology in those areas not sufficiently covered by the UCONN faculty presently doing research in the area.

We have worked closely with Yale for over five years in promoting nanotechnology efforts in the State. Having the two cooperating centers with different academic intellectual thrusts will well serve the State's efforts in the technology frontier. In addition UCONN has worked closely with Yale and other State Institutions on promoting Nanotechnology Higher Education Curriculum Development and will continue to assist in this effort. These and other efforts presently being done at UCONN to bring nanotechnology into the curriculum will greatly assist

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in developing the highly skilled workforce that is and will be necessary to optimize the impact of nanotechnology on the economic development of the state.

The concept of providing seed funding to transition University's research developments to Connecticut's industry is also critically needed and is a very favorable part of the proposed activities, as we understand them. In reality this approach is critical and should receive significant attention to make sure the technologies are moved forward within the State so it will have the advantage of the economic developments associated with the new technologies. UCONN nanotechnology research faculty strongly support the State's efforts to make this happen by infusing academic/industrial developmental research funds to initiate the interactions that will result in bringing the technologies closer to being commercially viable.

In summary, UCONN researchers in nanotechnology and the Institute of Materials Science with its supporting infrastructure and extensive experience in working with industry, strongly support this State Nanotechnology Initiative to make Connecticut competitive in this evolving area of significant economic development and the high technology jobs associated with it.

I would be pleased to expand on these thoughts and to supply any additional information you may feel that may be useful in your deliberations.

Harris L. Marcus

Chairman of the UCONN Nanotech Steering Committee
Director of the Institute of Materials Science
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cc: Provost, Peter Nicholls
President, Michael J. Hogan
Vice Provost of Research, Gregory Anderson
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