



## **Nanotechnology Advisory Committee**

**June 19, 2007 1:00 pm**

**Speaker's Conference Room, 6th Floor, General Assembly Building**

- **Call to order, roll call:**

Delegate Kenneth Plum called the meeting to order. The members of the committee and JCOTS staff introduced themselves and shared their background and interest in nanotechnology within the Commonwealth.

- **Chairman's Opening Remarks.**

Delegate Harry Purkey, chairman of the Nanotechnology Advisory Committee discussed the dramatic progress the Commonwealth has made in the field of nanotechnology. He stated that the Commonwealth has acquired a great deal of national attention from the technology and medical industries for its progress.

- **Overview of the role of JCOTS advisory committees:**

Staff provided a brief introduction to the committee about the role of JCOTS in establishing science and technology policy in the Commonwealth, and how the various committees work with JCOTS in establishing this policy. A copy of this presentation is available at the JCOTS website.

- **Overview of Nanotechnology:**

JCOTS staff provided an overview of policy issues and recent legislation related to nanotechnology and highlighted the issues to be addressed by the Advisory Committee. Of particular note were HJ 611 (Purkey) and HJ 647 (Purkey), both adopted by the General Assembly in 2007. HJ 611, as adopted by the General Assembly, establishes a joint subcommittee to study science and technology education in business, law, and policy graduate programs at the Commonwealth's institutions of higher education. HJ 647 requests the Secretary of Technology and Virginia Research and Technology Advisory Commission to develop a Nanotechnology Users Network to enable the networking of and access to nanotechnology instrumentation at

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**Delegate Joe T. May, Chair**

**Senator John C. Watkins, Vice Chair**



Commonwealth institutions of higher education. Staff also discussed Virginia's and other states' nanotechnology funding initiatives. A copy of the presentation is available at the JCOTS website.

- **Discussion and formulation of work plan:**

Delegate Purkey opened the discussion by stating that it is imperative to look at what other states are doing with nanotechnology. He stated that Virginia can not afford to give a competitive advantage to other states. Delegate Purkey emphasized the need to create private-sector employment in Virginia. He suggested the committee have guest speakers that administer other state nanotechnology initiatives to explain the current status of their programs. The members of the committee agreed that it is important to understand funding of other initiatives and that guest speakers would be of great assistance in developing the Commonwealth's nanotechnology policy.

Members discussed the fiscal investments of other states and how the money is distributed to private sector businesses to start up nanotechnology businesses. Members reached a consensus that a need exists to form more private-public partnerships. It was noted that Oklahoma formed an advantageous education telecommunications partnership with Cisco Systems.

Members discussed the need to find alternative financing forms to encourage private nanotechnology businesses to locate in Virginia. Delegate Purkey suggested that the committee invite guest speakers that have experience in private equity investments.

Members discussed the success of many private nanotechnology firms in Virginia. The growth and history of the businesses were discussed.

A member suggested that it is important for the committee to know what other states' institutions of higher education are accomplishing. A consensus formed recognizing the need to study other states' universities nanotechnology programs and initiatives.

Delegate Purkey suggested that the Commonwealth may benefit by hosting a national nanotechnology conference in the coming years. A member stated that the National Nanotechnology Coordination Office has hosted national conferences in the past.

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A member suggested that the need to obtain federal grants is important to the state. All members agreed that the procedure to acquire federal funds deserves the committee's attention. The members discussed different national government agencies and their national funding efforts of nanotechnology.

The need for the committee to develop greater justification for a nanotechnology authority was discussed by the members. Members recognized that the General Assembly would like concrete examples of how such an authority could improve business and create jobs. Members felt that it would be important to have existing Virginia authorities discuss their progress. Other authorities' presentations can help the committee formulate what a nanotechnology authority's responsibilities and goals may be.

A work plan among the members emerged. The members decided that it would be more proficient if smaller work groups formed to address possible authority compositions, other states' nanotechnology initiatives, funding, and federal resources. The members volunteered to the workgroups they felt they could best contribute.

Delegate Purkey discussed the goal of the committee to define the possible economic impact and creation of private employment by a Commonwealth nanotechnology initiative. Members of the committee acknowledged that the committee will need to address whether such an initiative will focus on creating virtual or brick and mortar locations for nanotechnology.

Delegate Plum thanked the committee for their enthusiasm and effort.

Delegate Purkey made closing remarks and emphasized the success of the 2007 Nanotechnology Day at the General Assembly. He stated the importance of planning the 2008 Nanotechnology Day and how many legislative members appreciated the opportunity to learn about nanotechnology.

• **Public comment:**

No public comment was received.

• **Actions for the next meeting:**

The committee identified several issues to study during the 2007 Interim:

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- Presentations of other states' nanotechnology funding initiatives;
  - Ben Franklin Technology Partners (PA)
  - Oregon
  - Colorado
  - New Mexico
  - Arizona
  - New York
  - North Carolina
- Formulate workgroups to study state and federal funding;
- Formulate workgroup to study the responsibilities and goals of a nanotechnology authority;
- The creation of private-public partnerships to encourage businesses to relocate or establish their businesses in the Commonwealth;
  - Potentially interested in a presentation from SAIC
- Study the potential of using university endowment funds as investors in nanotechnology start-ups.
- Review the recently published Lux Research report on nanotechnology;
- Study federal funding opportunities available through Congress or other federal agencies for the creation and continuation of nanotechnology businesses;
  - DARPA, EARAPA, NSF, etc.
- Formally invite VRTAC to work with JCOTS;
- Organize the 2008 Nanotechnology Day to be held during the 2008 session of the Virginia General Assembly.

## Workgroup Assignments (Leader= Lisa Friedersdorf):

- State comparison of public nanotechnology organizations
  - Patrick, Gleason, Leo, Verona, Meehan
- Virginia Nanotechnology Authority (or similar structure) components
  - McIver, Danziger, Loope, Verona, Friedersdorf, Hull, Leslie
- State funding options
  - Gleason, Gause, Stuart
- Federal funding priorities and opportunities
  - Stuart, Manos, Gause, Loope, Kadtke, Meehan

## • Adjournment.