

DIVISION OF RESEARCH

FISCAL YEAR 2009 ANNUAL REPORT



UNIVERSITY OF  
MARYLAND

## MESSAGE FROM DR. MEL BERNSTEIN:



The University of Maryland's research community had an outstanding 2009 fiscal year resulting in more than \$518 million awarded to campus researchers. This record amount is a 30% increase from FY 2008 award totals. In addition to receiving awards and carrying

out projects, UM researchers submitted 20% more proposals in FY 2009, increasing the total dollar amount requested by 70% over FY 2008.

The increase in proposal and award activity is accompanied by an increase in the intensity and nature of the research. Proposals and projects are increasingly multi-disciplinary and require close coordination between the sponsors, UM, and other

partner institutions and corporations – activities in which the University has a long history of success.

The Division of Research facilitates the University's growth towards becoming one of the nation's preeminent public research universities by encouraging and supporting faculty and administrators, and providing leadership in engaging with the nonprofit, commercial, government, and international communities. This current success builds upon years of strategic planning and infrastructure investments as the state of Maryland's flagship public research university. The Division of Research is increasingly aligning the University's research capabilities to local, state, regional and national needs and goals, thus assuring that UM is an active participant as the nation's research agenda is being developed and implemented.

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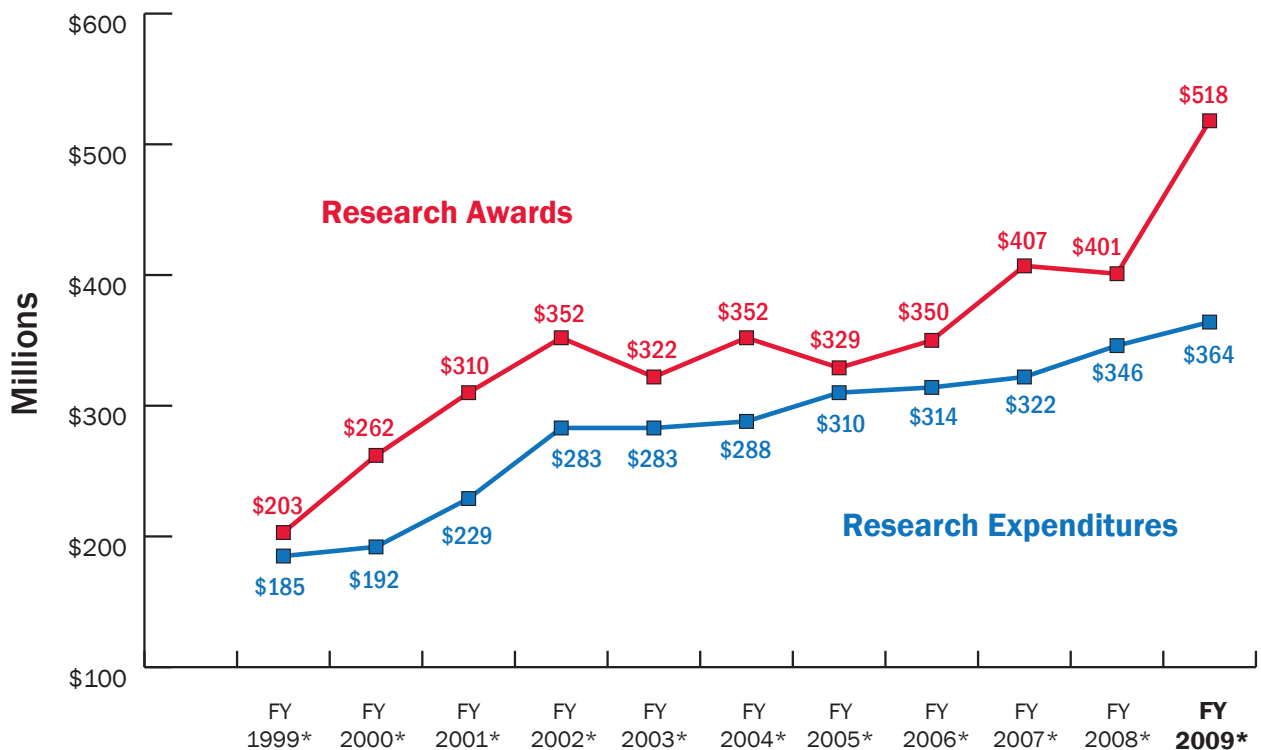
## UM Sponsored Research and Outreach Activity, FY 2009: Projects Administered & not Administered by ORAA

	Projects Administered by ORAA *	Other UM Sponsored Research & Outreach Activity	Total Amount Received
A. James Clark School of Engineering	\$155,963,336	\$15,150,455	\$171,113,791
College of Agriculture & Natural Resources	\$24,044,364	\$10,160,238	\$34,204,602
College of Arts & Humanities	\$15,884,479	\$543,199	\$16,427,678
College of Behavioral & Social Sciences	\$60,170,510	\$8,317,332	\$68,487,842
College of Chemical & Life Sciences	\$21,383,543	\$1,560,796	\$22,944,339
College of Computer, Math & Physical Sciences	\$111,353,573	\$2,065,763	\$113,419,336
College of Education	\$13,652,499	\$323,046	\$13,975,545
College of Information Studies	\$2,796,221	\$58,607	\$2,854,828
Other Units **	\$36,104,233	\$13,790,127	\$49,894,360
Philip Merrill College of Journalism	\$287,404	\$3,240,609	\$3,528,013
Robert H. Smith School of Business	\$1,263,095	\$1,889,340	\$3,152,435
School of Architecture	\$977,709	\$255,953	\$1,233,662
School of Public Health	\$8,593,202	\$8,250	\$8,601,452
School of Public Policy	\$4,200,465	\$4,239,587	\$8,440,052
<b>TOTAL AWARDED FOR ALL SPONSORED PROJECTS</b>	<b>\$456,674,631</b>	<b>\$61,603,302</b>	<b>\$518,277,933</b>

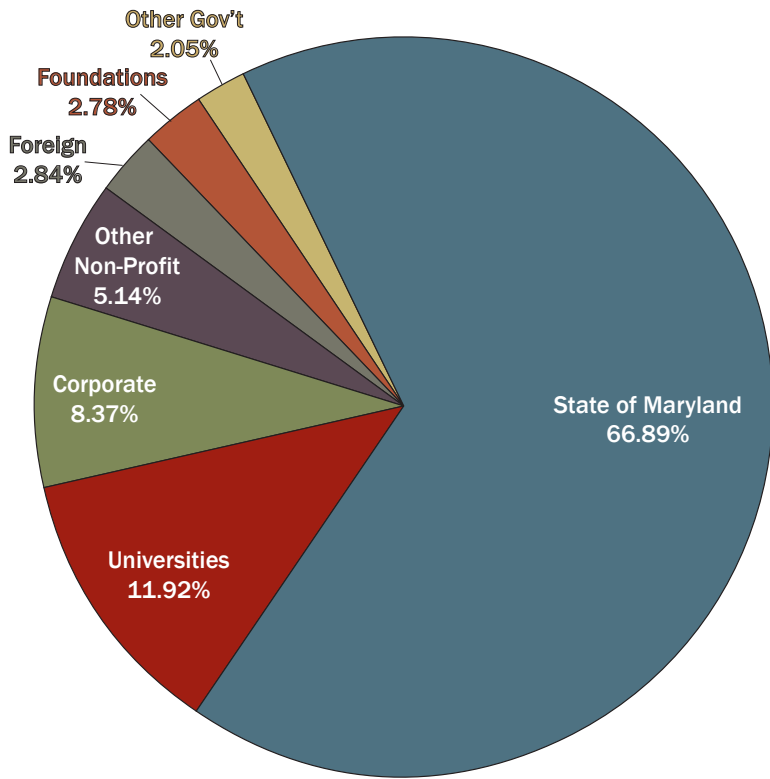
\* Based on assigned Unit credit

\*\* "Other" Includes - EXST, FMGT, GRAD, LIBR, OIT, OPS, PRES, SVPAAP, UGST, VPAA, VPR, VPSA

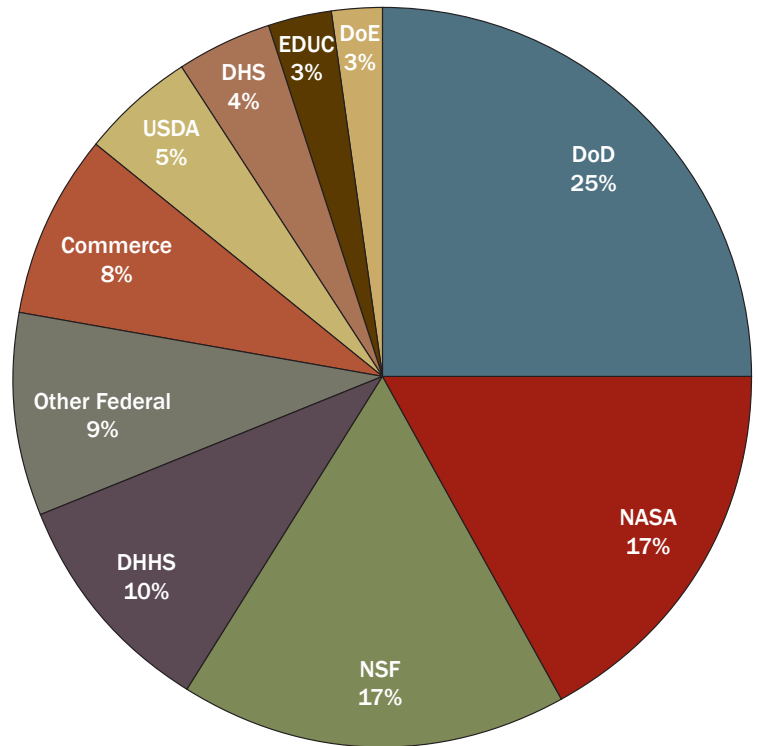
## UM Sponsored Research Award & Expenditure Totals, FY 1999-2009



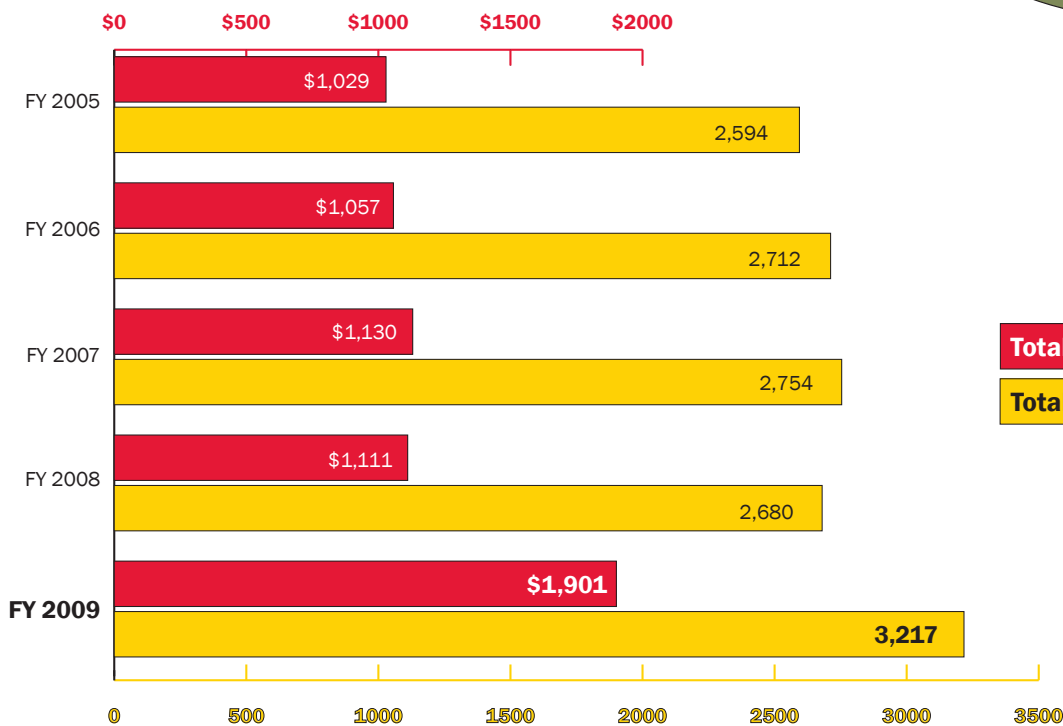
\*Beginning with FY2000, UM collected Sponsored Research and Outreach Award Activity.



**<< FY 2009 Sponsored Non-Federal Award Dollars**



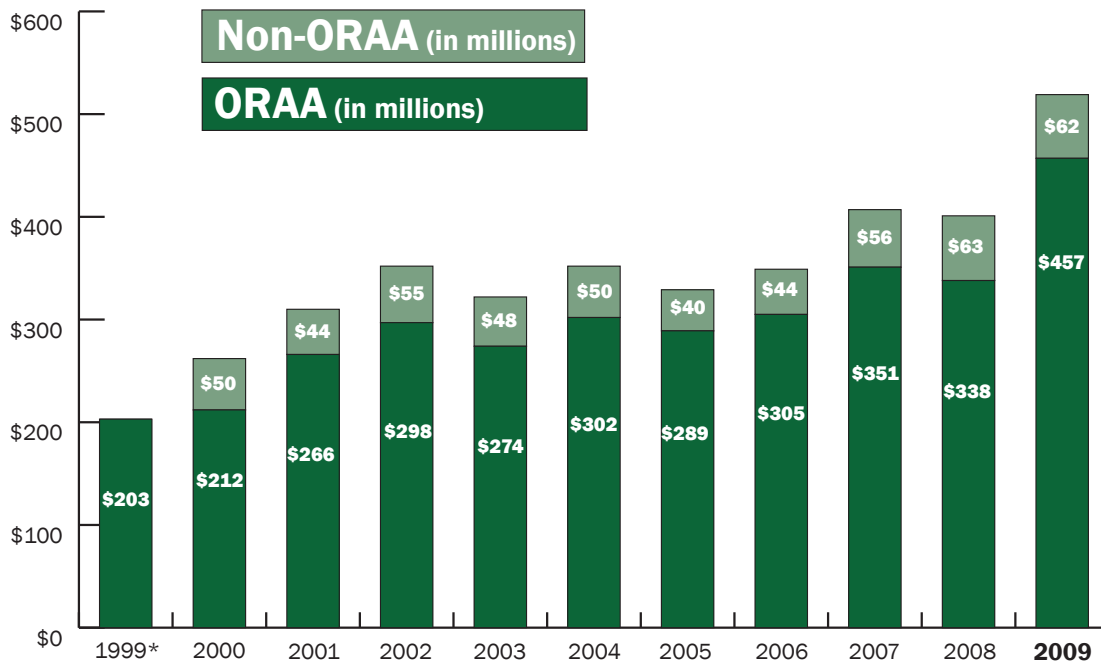
**Proposal Activity**



**Total Dollar Amount Requested (in millions)**

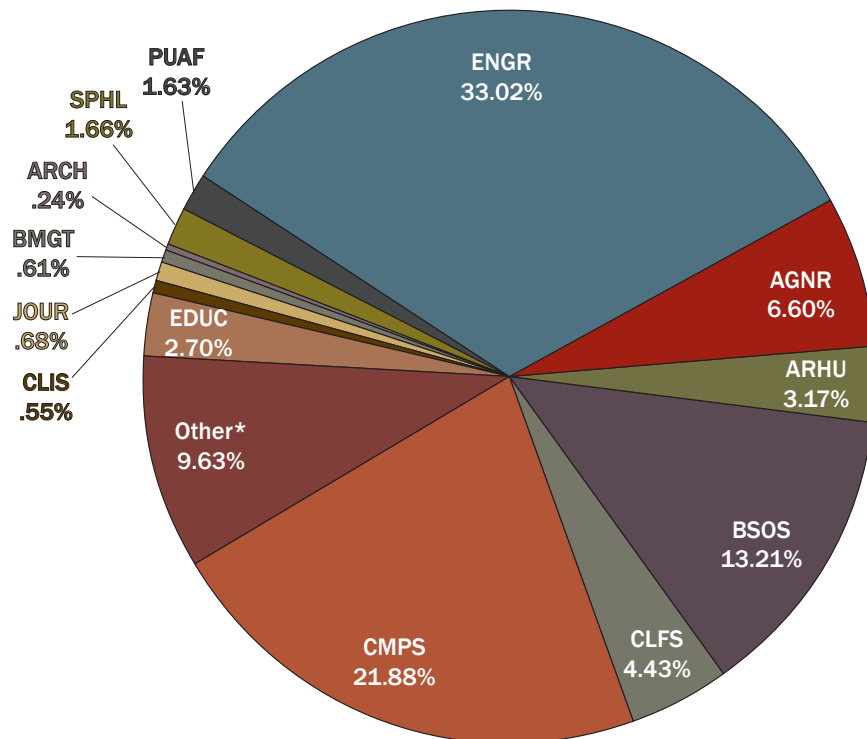
**Total Number of Proposals Submitted**

## UM Contract & Grant Activity, Fiscal Years 1999-2009



\*FY 1999 data was sourced from ORAA only

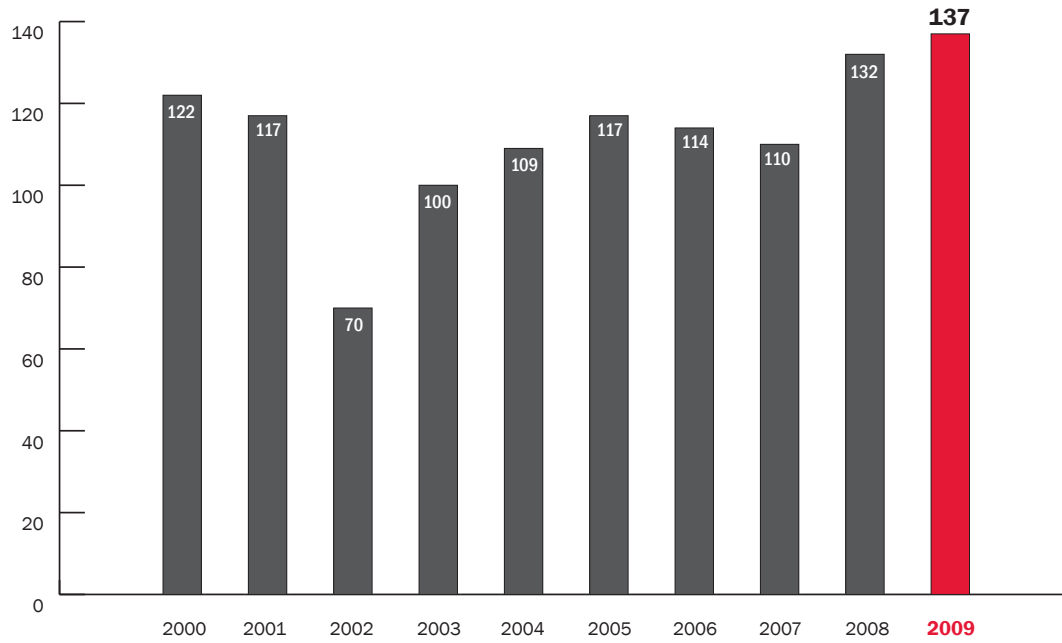
## FY09 Sponsored Research & Outreach Activity by College



\*Other units on campus:  
EXST, FMGT, GRAD, LIBR, OIT, OPS, PRES, SVPAAP, UGST, VPAA, VPR, VPSA

# OFFICE OF TECHNOLOGY COMMERCIALIZATION

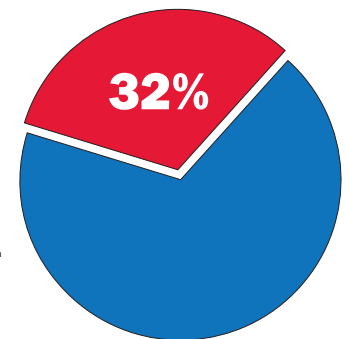
## Disclosures over the past 10 years



FY2009 was another record high year for disclosures received with **137**.

## Joint Ownership

**32%** of FY2009's 137 disclosures (**44**) are jointly owned with **26** different universities, businesses, and government institutions.



## OTC Success Story:

### Flexel LLC

[www.flexelinc.com](http://www.flexelinc.com)

Start-up company Flexel LLC was created in fiscal year 2009 to develop the world's highest energy, density thin, film battery for public use. The technology, created by Drs. Martin Peckerar, Neil Goldman, and Zeynep Dilli, Mr. Yves Gnu, and Dr. George Metze from the National Security Agency, makes possible a number of stronger, smaller electronic devices. Applications include wireless sensor networks, active Radio Frequency Identification (RFID), wearable electronics, and

medical implants. The batteries are comprised entirely of environmentally friendly material.

Already attracting investments and awards, Flexel received a \$25,000 grant from Science Applications International Corporation (SAIC) and is a winner of both the University of Maryland Business Plan Competition and the 2008 Invention of the Year Award in Physical Science. Flexel is currently a member of the MTECH Venture Accelerator program.

# ABOUT THE DIVISION OF RESEARCH

**T**he Division of Research is comprised of several offices which facilitate, administer, and further develop the research activities and opportunities at the University of Maryland. The Division administers other outreach programs including the University's growing Research Park, the statewide Small Business Development Center network, regional Small Business Development Center, the Institute for Governmental Service and Research, and international business initiatives. Additionally, the Division coordinates the University's entrepreneurial service programs.

The Office of the Vice President for Research houses the Vice President for Research and staff who support research development, research administration, financial services, human resources, and research compliance.

The Research Development Office provides a support infrastructure and critical outreach to Federal funding agencies, Federal labs, industry, and others in order to facilitate the growth in volume, impact, and visibility of University of Maryland's research enterprise. This office works with faculty on strategic approaches for securing funding, and facilitates the development of large multi-disciplinary proposals.

As the University's designated pre-award and non-financial post-award office, the Office of Research Administration and Advancement (ORAA), provides high-quality support to faculty, staff, and students involved in the campus's research, scholarship, and

outreach endeavors. ORAA implements electronic research administration programs, facilitates the submission of all sponsored project proposals on behalf of the University, negotiates and executes agreements, and provides sponsored projects communication and education to support the management of these projects.

Three separate compliance functions, Conflict of Interest Committee, Institutional Review Board, and Institutional Animal Care and Use Committee, have been consolidated into the Research Compliance Office which increases the efficiency of each process through shared staff, equipment, and knowledge. The Research Compliance Office also coordinates the internal review of University-nominated applications in response to limited submission funding announcements and facilitates training in the Responsible Conduct of Research, including a variety of areas such as conflict of interest, intellectual property, and research integrity.

The Office of Technology Commercialization facilitates the transfer of intellectual property to business and industry through the development and management of a high-quality portfolio of diverse technologies, ensures intellectual property rights, negotiates and executes licensing agreements, and, as feasible, assists in the formation of start-up businesses that utilize the University's technology to provide benefits to both the University and the regional economy.

**Launch of NOAA weather balloon  
(photo courtesy of the National Oceanic  
and Atmospheric Administration)**



# UM DESIGNATION AS MINORITY SERVING INSTITUTION

**T**he University of Maryland has been granted status as a “minority-serving institution” for Asian Americans and related groups, a gateway to targeted federal support for scholarships and the growth of academic programs. It’s the first “minority-serving” designation for the University of Maryland. Additionally, the U. S. Department of Education has granted Maryland \$2.4 million over two years – one of only six schools nationwide, and the only major public research university, to be funded under this program. Fourteen percent of UM’s population is Asian American, representing the largest minority group on campus.

The new Federal funding will help to expand the research and scholarship component of the Asian American Studies Program. The bulk of the money will be used to expand the program with a cutting-edge curriculum, additional courses and the creation of opportunities for experiential learning such as

international study. As part of this plan, the program will begin focusing on the experiences of Chinese Americans, Filipino Americans, Korean Americans, South Asian Americans and Vietnamese Americans. According to Dr. Shinagawa, Maryland will become only the second university in the nation to adopt this approach. The funding will allow the Asian American Studies Program to expand the research component, the Census Information Center. It is one of only two U.S. Census Information Centers in the nation devoted to Asian Americans and Pacific Islanders. The Maryland program helps give Asian American communities full access to U.S. census data.

“It’s something that the government has recognized,” Director Larry Shinagawa said. “They have historically recognized black colleges, Hispanic colleges and universities and Native American tribal colleges. And now what they have decided to do is recognize institutions that serve a significant portion of Asian American students.”



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## Sources:

- \* UM Newsdesk - UM Becomes U.S. ‘Minority-Serving Institution’ for Asian Americans (permission granted by Dr. Larry Shinagawa, Director-Asian American Studies Program)
- \* UM Division of Research
- \* UM Office of Research Administration and Advancement
- \* UM Office of Technology Commercialization
- \* North Atlantic Treaty Organization (virus photo)