



The Sage Colleges



The **Incubator for New Ventures in Emerging Sciences and Technologies** (INVEST) located at Russell Sage College in Troy, New York, is exceptionally well equipped for an incubator/accelerator affiliated with a liberal-arts college. INVEST offers 21 wet-lab workstations suitable for nanotechnology, energy, pharmaceutical and biotechnology clients. A separate wing has offices suites available to users of lab space and flexible for "dry" ventures in IT or other fields and micro-enterprise.



INVEST is directed by Dr. Thomas Keane, who also directs the college's Laboratories for Interdisciplinary Studies in Emerging Sciences. The lab facility of INVEST has a direct connection with the college's science building, making it easily accessible to both faculty and students interested in internships with incubator tenants.

INVEST is proud to support the **Center for Economic Growth** as a participant in the **Clinton Global Initiative**.

For more information about INVEST and opportunity for participation, please contact:



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Facilities overview

INVEST, the premier center for innovation and entrepreneurship in New York's Capital Region and Tech Valley, is comprised of three components – John Paine Lab Facility, Esteves CIE, and ISES.

John Paine Lab Facility

- 8,801 sq. ft. of combined wet-chemistry lab and office space.

Esteves Center for Innovation and Entrepreneurship

- Utilized for a range of business ventures from additional support for the wet-chemistry lab facility to IT, non-tech businesses and micro-enterprises having standard office needs.

ISES – Laboratories for Interdisciplinary Studies and Emerging Sciences

- Academic research arm of the INVEST lab facility.
- Operated by the department of chemistry and biochemistry.
- Designed around the principle that physical science forms the foundation for the study of all natural phenomena.
- ISES will encourage basic interdisciplinary research in emerging sciences and technologies.
- Proximity to the incubator labs facilitates interactions between RSC students and faculty with incubator employees.

INVEST is more than bricks and mortar. It is an overarching concept founded on business incubation for tech and non-tech ventures while at the same time providing a new venue for growth and exploration for Sage faculty and students. The college will provide access to technical and business advice through its relevant scientific and management programs, including entrepreneurial connections on the INVEST Advisory Board (IAB). Although tenant-landlord interactions will be necessary and inevitable, the primary focus of the project is not on a "landlord model" but the potential for vibrant college-wide interactions with the incubator/client relationship across all the pertinent academic disciplines offered at the college.

Mission + Goal

The mission & primary goal of INVEST is to nucleate entrepreneurial vision while growing new businesses. Together with the incubator client/tenant, quality undergraduate and graduate programs of The Sage Colleges will ensure a vibrant interaction that will have a positive impact on the business venture, the college and surrounding community. The incubator client–college partnership will create unique educational experiences through a new entrepreneurial outlet for tech start-ups and other business ventures, Sage faculty, and students.

There are three main goals for INVEST:

- Short term: Revenue generation for the college through rent, fees and services.
- Mid term: Leverage generated through PR that enhance the college's ability to recruit and retain students.
- Long term; Revenue generated through gifting and/or equity.

INVEST will create an entrepreneurial outlet for new ventures, Sage faculty, Staff and Students.

- Faculty, students, and administrators on both campuses of The Sage Colleges will provide either direct or advisory support in key business areas.
- The director will work with incubator client/tenants and other local employers to provide academically appropriate internships
- Representatives from the incubator companies may serve on advisory committees working with faculty to identify and shape new program material needed to prepare students for careers in today's marketplace
- In addition to fostering growth for new high tech start-ups, the incubator will generate publicity and new credibility for Sage's already established science and business programs.

Integrating INVEST into the fabric of the academic programs and educational community.

- Incubator clients (tenants) will be encouraged to utilize Sage resources including faculty and students.
- Diverse internships and research projects are envisioned that will generate learning experiences within an entrepreneurial environment

- Employees from the client companies will assist in the development and implementation of new science lab and business modules and will participate in guest lectures and departmental activities related to the goals of this project.
- A speaker series will be explored to focus on the interdisciplinary aspects of science, technology, and business.
- A willingness/desire to fit into the culture of the college through significant interactions with faculty and students. Examples include but are not limited to: guest lectures, seminars, interaction with faculty research, hosting interns/student employees, as well as community outreach programming etc.
- A combined baccalaureate degree in either chemistry or biochemistry with an accelerated MBA focusing on leadership and entrepreneurialism will be explored. As the population of the incubator becomes more diverse other dual pathways may emerge.

The INVEST project creates vital incubator space for Tech and other business start-ups.

- Support from INVEST for companies requiring wet-chemistry laboratory space will be provided along with access to advice and consultation from the relevant scientific, management and entrepreneurial connections within the Sage community. Meanwhile, access to attractive office space will facilitate growth and success for a diversity of business ventures.
- When growth necessitates a start-up's move to larger quarters, the incubator will become available for new companies. The project anticipates that multiple diverse companies can effectively share this space consisting of modern and attractive modular chemistry laboratories.
- Lease and fees, and/or investment income to Sage from incoming businesses will support the higher operating costs of the incubator space, but are scheduled at an attractive rate to remain competitive and foster company growth.

The INVEST project is unique from other incubators locally and nationally with its potential to germinate a diversity of business ventures and opportunities across the Sage Colleges (TSC), and is the first of its kind nationally at a college for women (RSC). From fully operational wet-chemistry labs that are in high demand but non-existent in the Capital Region, to space for IT, light manufacturing, and general office needs, to opportunities for women in science and technology and various micro-enterprises; the project is an investment, not only in the business venture of innovation and entrepreneurship, but for the college and surrounding community.

- Incubator facilities providing wet-chemistry laboratory space in the Capital Region have not kept pace with an increasing demand. As Tech Valley grows, the pressure from that demand will only increase.
- Benefits for start-up companies include fully functional wet-chemistry labs with abundant natural lighting and attractive office.
- While the primary focus is on the success of a university based tech-business incubator offering shared services for the tenant-client, existing strengths on campus combined with bright and eager students will enhance an exchange and synergy between the entrepreneurial ventures and the academic community.

INVEST will

- Provide Class A "wet-chemistry" labs and office space while fostering the growth and success for a diversity of innovative and entrepreneurial endeavors.
- Create unique educational experiences through a new entrepreneurial outlet for tech start-ups and other business ventures, Sage faculty, and students.

INVEST Client Companies will

- Participate in INVEST's public relations activities, including but not limited to, directly indicating that Tenant is a Client of or Tenant or its headquarters are located within "INVEST at Russell Sage College" and attempting to stress this fact during any interview.
- Accept Sage student interns/research assistants and participating in INVEST's related public relations activities related thereto, including but not limited to sharing and participating in interviews and highlights of student intern/researcher experiences/achievements.
- List Tenant's logo and basic information on the INVEST website as a client company. All related signage, internal and/or external, will include Tenant's name as a client under the main title indicating the INVEST incubator program.
- Abide by the terminology that is the norm at incubators nationally and common within the National Business Incubator Association (NBIA), including, but not limited to, being referred to as an incubator "client within INVEST at Russell Sage College" and "graduating" from the incubator upon exiting from the incubator program, etc.
- Give guest lectures within classes when/where appropriate to the needs of the academic program and Tenant's area of expertise.
- Participate in seminars/speaker series when/where appropriate to the needs of the academic program and Tenant's area of expertise.
- Participate/collaborate in appropriate research projects within the academic programs.

Beyond any potential revenue or equity in the future, are the added values acquired through recognition and prestige as well as a distinctive marketing niche for the college.

Future planning anticipates growth and diversification, radiating from the core of science & technology, to business, communication, design and beyond. An exciting longer term outcome envisions generations of students developing and operating their own business venture through INVEST.

Internships



To date over 52 students have been involved in a combination of lab and business based internships with companies involved in cutting-edge technology development ranging from nanotechnology to alternative energy generation and storage to biotechnology to IT.

Priority will be given to applicants who possess a defined skill set and aptitude for any particular internship as defined by the resident company HR and the academic liaison. Student interns may also work with the faculty and incubator personnel to develop learning experiences for their peers. These students may also help with the implementation of these learning experiences into courses across various disciplines.

Science students may apply through one of two specific points of entry:

- Senior Research in Chemistry or Biochemistry
- Student Internships in Forensic Science

In general, Science majors interested in senior research in chemistry or biochemistry or laboratory based internship opportunities with any of INVEST's chemistry or biochemistry based companies, must either major in Chemistry or Biochemistry, or have a rigorous chemistry and biochemistry background unless otherwise noted by the Director and Academic Liaison of INVEST. Applicants must be in excellent academic standing and be a good fit with the company's culture and needs.

All internship and senior research students are nominated by the department of chemistry and biochemistry. Application portfolios are then submitted to the company's Human Resources Department after final approval by Sage's Academic Liaison to INVEST. Final decisions regarding internships, research projects etc are made by the company.

Time Requirements

Generally requires a minimum of 8 hours per week in most cases with the specifics to be determined by the faculty advisor and/or mentor at the INVEST company.

Minimum of 1 academic semester for internship, 1 academic year for senior research

The internship/research project may include any or all of the following:

- Synthetic methodology, data collection and analysis
- Presentation(s) of research findings to the R&D, Engineering, Quality Control and Manufacturing groups as well as departmental presentations as required by the department of chemistry and physics.

The applicant should be familiar with laboratory safety and chemical handling practices, have a background in analytical chemistry and instrumental analysis and in performing standard chemical laboratory procedures have experience using/operating various types of analytical equipment and instrumentation, such as:

- pH meters
- FTIR
- NMR
- UV/Vis Spectrophotometers
- Fluorescence spectrophotometer
- HPLC
- GC and GC-MS
- be proficient with MS Excel and MS Word

Chemistry courses providing the appropriate background include:

- Chemical Analysis (CHM205)
- Organic Chemistry with Lab (CHM201, 201L, 202, 202L)

- Instrumental Analysis (CHM 302)
- Biochemistry (CHM 303, 304)

Ideally an applicants background would also include both Physical Chemistry (CHM 305 and 306) and Inorganic Chemistry (CHM 404), which may be taken concurrently with the internship/research project.

A minimum GPA 3.2 in chemistry with 3.2 overall GPA is required of all applicants.

Supporting documentation will include an official transcript and three letters of recommendation from faculty, one being from the Academic Liaison to INVEST.

Students interested in an internship with an INVEST company should contact Tom Keane, Ph.D., Director and Academic Liaison, at (518) 244-2299 or keanet@sage.edu.

INVEST Facilities

INVEST, the premier center for innovation and entrepreneurship in New York's Capital Region and Tech Valley, is comprised of three components – John Paine Lab Facility, Esteves CIE, and ISES.

John Paine Lab Facility

- Incubator Chemistry Labs – John Paine Building
- 8,801 sq. ft. of combined wet-chemistry lab and office space.
- Facilitates student, staff and faculty exchange for internships and projects.
- Cornerstone and core of the overall project.



Esteves Center for Innovation and Entrepreneurship

- Third floor of Hart Hall
- Utilized for a range of business ventures from additional support for the wet-chemistry lab facility to IT, non-tech businesses and micro-enterprises having standard office needs.
 - Entrepreneur in Residence
 - Student Entrepreneur Society
 - INVEST Wall of Fame



ISES – Laboratories for Interdisciplinary Studies and Emerging Sciences

- Academic research arm of the INVEST lab facility.
- Operated by the department of chemistry and biochemistry.
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- ISES will encourage basic interdisciplinary research in emerging sciences and technologies.
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INVEST Chemistry Labs

- Occupying the John Paine Building, the INVEST laboratory facility provides 8,801 sq. ft. of combined wet-chemistry lab and office space, is directly connected via an atrium to Mueller Science Hall (MSH) which facilitates student, staff and faculty exchange for internships and projects.
- As the cornerstone for the project the facility provides fully operational wet-chemistry labs for early, middle and late start-up phase companies based in the chemical and related nano-scale sciences. Examples include, but are not limited to, chemistry, materials and nanotechnology, biochemistry and biotechnology, pharmaceutical, etc.
- The facility also has office space that may be used in support of the labs or other business ventures ranging from IT to light manufacturing. Enriched opportunities for faculty and students are expected to emerge from the success of this core facility and the Center for Innovation and Entrepreneurship directly across the street.

Esteves Center for Innovation and Entrepreneurship

- Located on the third floor of Hart Hall and conveniently across from the laboratory facility, the CIE will provide an additional and attractive incubator office space. This space can be utilized for a range of business ventures from additional support for the wet-chemistry lab facility to IT, non-tech businesses and micro-enterprises having standard office needs.
- In addition to available office space, the CIE will also serve as the location for the office of the Director and Academic Liaison for INVEST, as well as the Student Entrepreneur Society and the INVEST Wall of Fame.
- The Student Entrepreneur Society (SES) will hold regular meetings and plan events centered on entrepreneurial leadership and innovation. Events envisioned include hosting guest speakers and/or an "Entrepreneur in Residence" representing entrepreneurial alumnae and business leaders from the Capital District and beyond. Outreach might include an on-campus call for invention or a business plan competition to activities for local high schools, etc.
- The INVEST Wall of Fame will highlight entrepreneurial vision and those who have made a significant impact on the project.

Laboratories for Interdisciplinary Studies in Emerging Sciences

The Laboratories for Interdisciplinary Studies in Emerging Sciences (ISES) - operated by the department of chemistry and biochemistry - represents the academic arm of the INVEST lab facility. Designed around the principle that physical science forms the foundation for the study of all natural phenomena, ISES will encourage basic interdisciplinary research in emerging sciences and technologies. A proximity to the incubator labs will facilitate interactions between RSC students and faculty with incubator employees.

As a result of the NSF CCLI grant based on INVEST and ISES (during the last three years), RSC students helped to develop 17 new nanoscience modules with input from the RSC faculty and incubator client scientific staff. Then, those same students participated in the dissemination of that material in the academic labs impacting students across disciplines.

General Incubator Services

- Standard Electrical service (lights, heat, 110V service)
- Natural gas (heating)
- High-speed internet connection
- Unlimited local phone calls
- Building maintenance and security
- Shared use office equipment - copier/fax (supplies to be provided by the Client)
- Conference room access (by appointment only)
- Shared kitchen area
- 24/7 access to building
- Mail box
- Access to library facilities

With a college ID, Client's employees can utilize recreation facilities, including the Gator pit and basketball court, at no additional charge during regularly scheduled hours.

On a fee basis, the following items will be available to the Client;

- Access to copy/print services at the College rate (declining balance account to be created based on Client need)
- Long distance calling (fee schedule set by the College's telecom provider)
- Fax – local at no charge, long distance at cost of charges
- Parking (\$40 per permit per year)