The Healthcare Innovations Program was launched in September 2013 at the University of Connecticut School of Nursing to empower and teach our new generation of nurses to be innovators and change agents in the healthcare arena. It is now in its fifth year and the concepts of innovation, collaboration and entrepreneurship have been integrated into select courses in the freshman, junior and senior SON curriculum. Additional integration and development of the innovation curriculum is required to expand the opportunity for our next and current generation nurses to be change agents early and throughout their careers in the broad healthcare delivery system resulting in critical and important improvements to the delivery of healthcare globally.

Program Development Milestones

**Fall 2013**
Leadership course (N 3715 W)-
Healthcare Innovation/Change Agent concepts introduced. Students work in group to propose an healthcare need, research and develop a creative solution

**Spring 2014**
Leadership groups presents at the first SON “Shark Tank” competition during Athena Research Conference – 1 & 2\textsuperscript{nd} place awards granted

**14 Innovation projects presented**
Local TV coverage of event and Judges from a variety of schools and affiliations participated
SON Healthcare Innovation presentation by students at UConn Day at State Capital with TV Coverage
Funding: SON’74 Alumna Christine Meehan/Guest Lecturer/2011 Carol Ladd Widmer Awardee for Nursing Leadership

**Fall 2014**
Leadership course (N 3715W)-
Healthcare Innovation Project as above resulting in 17 Healthcare Innovation (HI) projects
Spring 2015
Shark Tank Competition during Athena Conference
*17 Healthcare Innovation projects presented*
Funding: SON’74 Alumna Christine Meehan/Guest Instructor

Fall 2015
- Leadership (N3715W)
  Start of HI group projects and innovation concepts for seniors
  Collaboration with the SOE MEM Program on 3 HI projects
- Healthcare Delivery Systems (NURS 1130) Introduction of
  innovation concepts and expanded nursing career opportunities

Innovation Faculty: Christine Meehan, appointed Adjunct
Professor and Professor Anna Bourgault, Asst Clinical Professor
appointed as co-faculty director

Spring 2016
- Ethical Ways of Knowing (N3225)
  Start of HI project for juniors to give 3 semesters to work on HI project
- Healthcare Delivery Systems (N1130) Introduce Innovation Concepts
- Past as Prologue (N4265) – Presentation on alternative and
  innovative nursing career opportunities. Preparation for PPT
  Sharktank Competition during Athena Research Conference
  *15 Healthcare Innovation Presentations with 3 SOE collaborations*

September 2016
Leadership (N 3715W)
Healthcare Delivery (N1130)
Freshman Learning Community (UNIV 1810) Introduce Freshman
SON students to the entrepreneurial ecosystem on the Uconn campus
including STEM dorm Makerspace and Provost’s Idea Grant and IQ
funding opportunities for new innovative ideas

Spring 2017
Ethical Ways of Knowing (N3225)
Healthcare Delivery Systems (N1130)
Past as Prologue (N4265)
Athena/ SharkTank competition – April 19, 2017
*22 Healthcare Innovation projects to be presented*
Academic Year 2017 – 2018

Independent Nursing Innovation Study for 8 School of Nursing Students on collaborative projects with School of Engineering, Dept. of Chemistry, and School of Business. Funded with Venturewell Grant for $30,000

**Project 1:** Zika Zapp – To deterred Zika virus from mosquitos (3\textsuperscript{rd} world focus) infecting pregnant woman and others

**Project 2:** Secure Syringes – Prevent Needle Sticks (3\textsuperscript{rd} world focus)

**Project 3:** Delirium Bear – Prevent delirium in elderly hospitalized patients Collaboration with UCHC

**Project 4:** Reduce Medical glove Waste and prevent HAI

**Project 5:** Visually Impaired Project to develop new sensing mechanism for blind people

**Project 6:** Hydralizer – Wearable sensor to detect over hydration and dehydration

Affiliations/Associates/Collaborators to SON Healthcare Innovation Program

**UConn Entrepreneurship and Innovation Consortium** 2013 – Present / Now the Peter Werth Institute for Innovation and Entrepreneurship

Consortium, which represents all innovation programs and opportunities on the UConn and Farmington Campuses

Dean Cusson and Christine Meehan joined the newly formed Provost’s UConn Entrepreneurship Consortium and joined the Steering Committee

Now it is the **Peter Werth Institute for Innovation and Entrepreneurship**

Current Members of the Steering Committee – C. Meehan and A. Bourgault

**School of Engineering (MEM program)** 2015-Present

Dr. Diane VanScoter, Program with SO Business

Three joint projects in 2015 and 4-5 in 2016-2017
School of Engineering Biomedical Engineering (BME) 2015-Present
Dr. Ki Chon, Dr. Insoo Kim and Dr. Patrick Kumavor and staff. Two joint Senior Design Projects for 2016-2017 already selected and being developed

UConn IP and Entrepreneurship Clinic – 2015 - Present
Attorney and Professor Linda Gebauer, Director of the IP and Entrepreneurship Clinic. 2 Provisional patents for Healthcare Innovation projects filed by SON/SOE students – in process

Farmington UConn Medical Center – 2016- Present
Sue Ellen Goodrich, Magnet Program Director.
Visit by Christine Meehan with SEG to RN staff at UCMC regarding RN innovation ideas
Select Innovation Projects presented during 2016 Nurse Week in UConnMC
Sue Ellen Goodrich participated as SharkTank Judge 2016
“Planting the Seeds of Nursing Innovation” program – To be scheduled for 2018 at UCHC

Office of the Provost - 2013- Present

Dr. Mon Choi, Provost
2016 Provost Mini Teaching Grant Award - $5,000
Awarded to Professors Christine Meehan, Anna Bourgault, and Dr. Diane Van Scoter, SOE
This grant provided funding to develop the first three prototypes out of the SON/SOE collaboration, which were presented at the SON Athena/SharkTank April 2016. Two HI collaborations went on to apply for provisional patents.
Funds have also supported faculty attendance at NE Innovation and Entrepreneurship Conference, June 2016 in Boston and upcoming AACN Annual Conference for Professor Bourgault. Abstract submitted to AACN
Professors Bourgault and VanScoter attended Provost’s CETL award meeting to share aspects of our innovative curriculum with other campus awardees (April ’16)

Dr. Larry Silbert, Vice Provost 2016
Meeting to discuss MakerSpace opportunities on campus for healthcare innovation idea development – space at new STEM Dorm vs space at SON
UConn Consortium for Entrepreneurship and Innovation  
2013 – Present

Recently renamed the Peter Werth Institute for Innovation and Entrepreneurship

Provost sponsored endeavor to bring all innovative programs on campus together for collaboration and resource sharing. *Funded with 22.5M from Peter Werth, the largest single individual gift to UConn in history for innovation.*

Office of First Year Learning
David Ouimette, Melissa Foreman, Vanessa Licowski
Met with for SON Learning Community to visit UConn STEM Makerspace Fall 2016

UConn Foundation  2013- Present
Amy Chesmer, Frank Gifford, Louis Bach
Established Fund for Healthcare Innovations
Developed Proposal for Healthcare Innovation Program Funding – Sent to J& J

UConn Innovation Quest (IQ) 2011- Present
The IQ program connects student teams with alumni mentors and other experts and can help take a project from an idea to the marketplace.

2016 – Samantha Nesbeth, Graduate SON student presents to UConn Innovation Quest


UConn Idea Grant        2013 – Present
Undergraduate research and innovative idea funding. SON is very active and receives numerous awards. Healthcare innovation groups are encouraged to apply.

2014-15 SON Report
Travel Awards – 3
Share Awards -2
Summer (SURF) Awards – 2
UConn Idea Grants – 3
Frontiers Presentations – 1
SON Faculty Review Committee Members -8 including C. Meehan
2017-Present
Idea Grant - 1
XcellR8 Program – Peter Werth NexGen Dorm 1917- Present
Venue for School of Nursing Students to “pitch” ideas for nursing innovation ideas. Presentation in January, 2017 for Lactabib and on April 16th, 2018 for 2 current SON Independent Innovation Projects

Accelerate UConn – School of Business 2016- Present
SON students applied and were accepted to the NSF program training but were unable to finish due to time constraints. SON grad/undergrad welcome to apply again

Small Business Development Center UConn Office 2014-Present
Work with Emily Carter on identifying curriculum materials

UConn Technology Incubation Program (TIP) 2015- present
Larry Parker/Natalie D'Oyen, Assistant Director TIP
Dr. Caroline Dealy, Director, TIP Summer Internship Program
Invited by Natalie D'Oyen to be member of panel discussing healthcare startups
First TIP SON Summer Intern – Joey Fetta, Summer 2017

NERAC 2014-Present
Kevin Bouley, President /Small Commercial Incubator for UConn and Regional Projects
Work closely with Kevin Bouley since start of program as Shark Tank Judge and supporter of nursing projects
Two HI teams presented at NERAC to potential investors 2015
Three SON students to present in the new XcellR8 program at the Peter Werth NexGen Dorm in 2018

Northeastern University Boston, MA June 17-18, 2016
Nurse Innovation & Entrepreneurship/Summit and Hackathon
Represented UConn SON Healthcare Innovation Program
C. Meehan invited to be a mentor to help groups with their innovation ideas
Ongoing discussion with Dean Hanrahan of NU about additional events and curriculum development 2016 - Present

Speaker at the Northeastern University Innovation conference on Education – September 2017
**Additional Activities**

**Invited Speaker**

Cleveland Clinic Innovation Summit, OH - October 23, 2017
“Nursing Innovation in Practice”

National Nurses in Business – Annual Mtg, FL – Nov 17-19
“The Role of Nursing in Healthcare Innovation”

**Hospital for Special Care – Marie Gustin Conference, CT – April 13, 2018**
“Innovation/Entrepreneurship in the Academic Setting”

**Support SON Faculty with innovation Ideas/Research:**
Grant Advisor on Dr. Ruth Lucas’ s **CT Pipeline Grant** which includes collaborating with SOE Biomedical (BME)

**Venturewell Grant Application – Ongoing - 2019**
Applied to VentureWell for $30,000 for program development in 2015. Received comments and asked to resubmit in September 2016 for funding in 2017. Revised submission ready to be submitted after final review by Dr. Regina Cusson

**Science Salon 2016-Present**
SON presented and active in this opportunity to present innovation. Presentation by Dr. Starkweather on March 3, 2016 on innovation in pain management.
Publications:

Draft article “Developing Leadership Skills in Nursing Students as Innovative Change Agents and Entrepreneurs” – submitted to “Nursing Education Perspectives/The Research Journal of the National League for Nursing.” Journal decision was revise and resubmit.

Above article in process of being rewritten to include the evaluation results by Dr. Cusson and Professors Bourgault and Meehan – To be submitted 2018 to The Journal of Nursing Education or similar publication.

“Healthcare Innovation Program: A Model for educating pre-licensure nursing students to become innovative change agents”

Total figures: 2013-2018

Undergraduate SON Students Participating in Innovation Curriculum:

2013 -
2014
2015- 120
2016 – 136

Total: Over 450 SON undergraduate students involved in nursing innovation curriculum from 2013-2017

2017 – 8 SON Undergraduate Students with Independent Study for Nursing Innovation Currently (Senior, Junior, Sophomore and Freshman SON students)