Welcome to the Global Collaboratory.

DuPont’s mission has always been to apply world-class science to solve the most difficult challenges of our time. This applies today more than ever, as the 21st century makes extraordinary demands of increasing complexity and scale.

We know that the biggest advances, the ones with the power to transform society, happen at the intersections of the scientific disciplines – biology, chemistry, engineering and materials science. We lead the world in integrated science – combining our scientific experience with our market knowledge and global collaborations to make the lives of people better every day.

From advancing the nutritional content of crops, to helping farmers and growers around the world increase food productivity, to finding better ways to ensure food security and safety, we’re working every day to get more nutritious food to more people in every corner of the world.

We’re also developing global energy solutions that contribute to a brighter energy future with innovations that are helping to make cars lighter, fuels cleaner and sustainable energy sources—such as the sun—easier to harness.

And, from life-saving body and car armor to cleaner refrigerants and sustainability solutions, we’re working to keep our earth and its precious inhabitants safe from harm.

Together, we are creating solutions through science-driven innovation to feed the world, build a secure energy future and protect what matters most.
Eighteenth century French scientist Antoine Laurent Lavoisier is considered the father of modern chemistry, but he accomplished much more than this. He was a pioneer in several areas – physiology, scientific agriculture and technology, and a leading figure in finance, economics, public education and government.

Although trained as a lawyer, young Lavoisier was much more interested in scientific matters. At age 29 he began studying combustion and “calcination” (oxidation) of metals. He observed that sulfur and phosphorus gained weight when they burned. He hypothesized that they absorbed air. Joseph Priestley had discovered “dephlogistigated air,” but it was Lavoisier who named this substance oxygen and observed that metals absorbed this substance to form “calces” (oxides). Lavoisier concluded that water was a compound of the two gases we call oxygen and hydrogen. This fact supplied the keystone for building the science of chemistry. His major work, Traité élémentaire de chimie (1789), contains the concepts which set chemistry on its modern path. He also devised the modern method of naming chemical compounds and was a member of the commission that developed the metric system.

Distressed by the deplorable condition of agriculture, in 1778 Lavoisier purchased an estate called Fréchines, and soon thereafter some surrounding land, and established the first experimental farm. There he led experiments that increased the productivity of the land. He also lobbied to change laws and customs that frustrated farmers who wished to implement his methods. His work inspired experimental farms established in recent times.

There is a close personal connection between the father of modern chemistry and the founder of the DuPont Company. In 1775, the French government enlisted Lavoisier to address a shortage of gunpowder, and he took a scientific approach to develop more efficient ways to produce saltpeter. He hired as an apprentice Eleuthère Irénée du Pont, the seventeen year old son of his associate Pierre du Pont. When the du Ponts arrived in America in 1800, they needed to establish a new business. E.I. convinced his father that there was great opportunity in this emerging nation for an improved black powder, and in 1802 E.I. du Pont established his company on the banks of the Brandywine River. E.I. had not only learned the most advanced powder making technologies from Lavoisier, he had absorbed the spirit of innovation that guided Lavoisier’s research as well.

It is an appropriate tribute that the medals awarded to outstanding scientists and engineers in DuPont bear the name Lavoisier. In scientific thought, in dedication to theory, observation and experimentation, in the breadth of his efforts in public service, he was both honorable and brilliant.
Lavoisier Academy

Bronze plaques honoring Academy members are on permanent display at the Terrace-on-the-Mall at the Experimental Station in Wilmington, Delaware.

1990

Max Frederick Bechtold
Leader of fundamental research in colloid and polymer chemistry — invented colloidal silica and scratch-resistant plastics

Elmer Keiser Bolton
Visionary industrial research leader — transformed scientific discoveries into commercial products: nylon, neoprene and polytetrafluoroethylene

Wallace Hume Carothers
Founder of science of man-made polymers — invented nylon and neoprene

William Hale Charch
Inventor of moistureproof cellophane — inspirational director of fundamental fibers research

Thomas Hamilton Chilton
Pioneering leader of fundamental chemical engineering research — established principles of unit operations

Abraham Bernard Cohen
Leader and innovator — established photopolymers as commercial imaging systems in electronics and printing

Lawrence “Buck” Curtis
Dynamic engineering leader — established many oil field technologies, including computerized production and tension-leg platforms

Ralph Kingsley Iler
Resourceful researcher and recognized authority in colloidal silica chemistry

Louis Plambeck, Jr.
Innovator who established the principles of photo polymerization for imaging applications

Charles Wyvill Todd
Discoverer of principles of modern crop protection chemicals — invented urea herbicides

1991

Nathaniel Converse Wyeth
Inventor of diverse manufacturing processes, such as those for plastic shotgun shells, nonwoven fabrics and polyester bottles

Herbert Blades
Inventor of commercial fiber spinning processes including air-gap and flash spinning

John Marion Crawford
Persuasive leader and developer of seismic oil exploration systems

William Earl Neal Doty
Innovative geophysicist — invented vibrator seismic oil exploration systems

Daniel Gintis
Prolific product innovator — developed the first pill-resistant, whitened and hollow polyester fibers

Crawford Hallock Greenewalt
Creative and inspirational scientific and business leader

Edward George Howard, Jr.
Innovative polymer scientist — invented many modified fluoropolymers and enhanced polyethylenes

George Levitt
Pioneer of low dosage agrichemical technology — discovered sulfonylurea herbicides

1992

Carl John Heffelfinger
Leading world scientist in polyester molecular structure and film technologies

Howard Wayne Jacobson
Prolific innovator and recognized authority on pigment coatings and TiO₂ technologies

Hein Louis Klopping
Inventor and developer of systemic fungicides

Herman Elbert Schroeder
Inspirational leader and innovator in synthetic elastomers

1993

Ronald Harry Halliwell
Provided valuable improvements in the production of a wide variety of polymers

Donald Richard Johnson
Pioneered the development of automatic clinical diagnostic instrumentation

Gerald J. Litt
Innovative leadership in analytical chemistry methodology, diagnostic device design and binding assay technology

1995

Paul Winthrop Morgan
Innovative investigator and discoverer of low temperature polyamide condensation polymerization

Charles John Pedersen
Resourceful industrial scientist and discoverer of crown ethers — Nobel laureate

Salim Meir Ibrahim
Innovative chemist and technical leader who epitomized scientific excellence coupled to commercial relevance

Herbert Sousa Eleuterio
Pioneer in applications of elastomeric fibers whose technical and business leadership shaped the Lycra® business
Stephanie Louise Kwolek
Persistent experimentalist and role model whose discovery of liquid crystalline polyamides led to Kevlar® aramid fibers

Joseph Clois Shivers, Jr.
Pioneering scientist and technical manager who developed the structural concepts for Lycra® spandex fibers

Howard Ensign Simmons, Jr.
Outstanding chemist and technical leader who catalyzed DuPont's technical growth in the life and material sciences

1996
Bennett Noah Epstein
Developer of a new branch of materials science - reinforced semicrystalline thermoplastics like supertough nylon

George William Parshall
Pioneering scientist and research leader in organometallic chemistry and catalysis

Charles D. Reilly
World recognized innovator in color physics and applied optics research

Paul Raphael Resnick
Expert in fluorine chemistry and inventor of a new class of amorphous fluoropolymers

Owen Wright Webster
Outstanding organic chemist with major contributions in cyanocarbon and polymer chemistry - discovered Group Transfer Polymerization

Joseph Zimmerman
Creative inventor and technical leader of industrial nylon technology and melt spun fibers

1997
Lothar Heinrich Brixner
World renowned expert in solid state chemistry and phosphors whose work led to the development of lower dose X-ray screens and films

William Charles Drinkard, Jr.
Inventor of catalytic process to convert butadiene to adiponitrile, the key to low cost nylon manufacturing

David C. England
Outstanding organofluorine chemist who contributed to the success of Nafton® perfluoroalumonic acid membranes

William Franklin Gresham
The most prolific inventor in DuPont history with 136 patents in process and polymer chemistry

1998
Joseph Jack Kirkland
Major contributor to important analytical technologies such as high performance liquid chromatography and field flow fractionation separation techniques

Charles M. A. Stine
Visionary research director and driving force behind the fundamental research program which led to nylon and the modern synthetic polymer industry

Arthur William Anderson
Creative research leader with major contributions to adiponitrile production and catalysts for linear polyethylene

Ralph Alvin Franke
Driving force behind DuPont spunbonded spinning and sheet forming technology

Theodore Augur Koch
Innovative leader in heterogeneous catalysis and process chemistry

John Anthony Kreuz
Technical catalyst behind many important Kapton® polyimide film products and processes

Robert Howard Stolt
Recognized leader in geophysics who made major innovations in seismic migration and inversion

1999
Reg Davies
Internationally recognized leader in fine particle technology

2000
Richard James Powell
Technical innovator in the development of the ethylene copolymers businesses - in particular Surlyn® ionomer resins and Nucrel® acid copolymer resins

V. N. M. (Malli) Rao
Prolific inventor in the fields of catalysis and organofluorine chemistry – especially chlorofluorocarbon alternatives

Joseph W. Gibson, Jr.
Inventor of dry dyeing process for polyester and blends; technical leader for Cyrel® photopolymer printing plate applications

Thomas Roger Keane
Internationally recognized authority in chemical reaction process engineering

Ying K. Lee
Technical strategist, inventor of Lucite® dispersion lacquer for automotive finishes, scientific ambassador to China

Albert L. Moore
Creative inventor whose composition of matter and process patents resulted in a competitive advantage in Viton® fluoroelastomers

Pallatheri M. (Subu) Subramanian
Technical leader in polymer blending, processing and fabrication and plastics recycling technology

2001
Vincent G. Witterholt
Entrepreneurial business leader and creative developer of agricultural product processes

I. Maxwell Robinson
Pioneer in coordination polymerization and discoverer of the high molecular weight aromatic polyimide polymers which led to development of Vespel® resins and Kapton® film

Hyunkook Shin
World-class innovator in flash spinning Tyvek® and in high temperature/high pressure polymer solution thermodynamics
Harry J. Spinelli
Polymer chemist who led DuPont’s entry into digital printing inks

2002

John Vytautas Duncia
Inventor of COZAAR®, losartan potassium, a new class of hyperintensive drugs

Arthur W. Etchells III
Internationally recognized expert in industrial mixing and fluid dynamics

Wilfred Sweeney
Research leader and pioneer in Nomex® aramid fiber development

George Vassilatos
Inventor and innovator in high-speed fiber spinning technology

2003

Loren John Hoffbeck
Innovator, mentor, geneticist and breeder of widely grown commercial corn hybrids for Pioneer Hi-Bred International

Rolando U. Pagilagan
Technology leader in polyamides and inventor of amorphous nylon engineering polymers

Rudy Pariser
Polymer science research leader and world-recognized quantum chemist in the field of pi-electronic molecules

Richard W. Rees
Inventor of Surlyn® ionomer resins and pioneer in “ionomer” science

Edmund A. Flexman
Innovator in engineering polymer science - inventor of Delrin® Supertough polycetal and the commercialized Zytel® Supertough nylon

Michael Fryd
Technical strategist and inventor - Lucite® dispersion lacquers, cobalt chain transfer technology, electronics and imaging

Thomas L. Nelson
Creative inventor of air interlacing technologies that revolutionized production of nylon

2004

Viodek Gabara
Gatekeeper for advanced fibers technology globally and innovator for Kevlar® and Nomex® high performance fibers

Harry J. Kamack
Resourceful and innovative leader in the design and development of large-scale polyester continuous polymerization lines

Melvin I. Kohan
Research pioneer who established the scientific and technical foundations for the engineering polymers business in Zytel® nylon and Delrin® acetal

2005

Edward J. Deyrup
Inventor of PET crystallization system for Rynite® - Technical innovator for Bynel® adhesives, Delrin® POM and Vamac® elastomers businesses

Charles Joseph Noelke
Innovative engineer and technical leader who developed and implemented new fluorochemical and fluopolymer processes including CFC alternatives

D. Peter Carlson
Expert in fluorinated copolymer technology - work led to improved Teflon® PFA and FEP resins and Viton® fluoroelastomers - Inventor of Tefzel® ETFE resins

Noel C. Scrivner
Visionary chemical engineer - led revolution in aqueous solution thermodynamics using predictive models

2006

Calvin Chi-Ching Chien
World renowned expert in environmental containment, transport modeling, and hydrogeology

George P. Lahm
Innovator and technical leader in agricultural chemistry - initiated research toward the discovery of indoxacarb, Rynaxypyr® and Cyazypyr™

2007

Robert L. Segebart
Top corn breeder for Pioneer Hi-Bred, mentor and advisor to many, and holder of 20 inbred and hybrid patents

Marc C. Albertsen
Founding member of Pioneer’s biotechnology research community and champion for bringing the benefits of biotechnology to developing agriculture in Africa

2008

Scott V. Tingey
Highly innovative leader of genomic technologies competency within Pioneer, early adopter and innovator of marker assisted breeding and transgenic plant creation

“Learn from yesterday, live for today, hope for tomorrow. The important thing is to not stop questioning.”

-Albert Einstein (1879 – 1955) physicist and Nobel Laureate
Display of Lavoisier Medal Plaques
Terrace on the Mall,
DuPont Experimental Station
Wilmington, Delaware