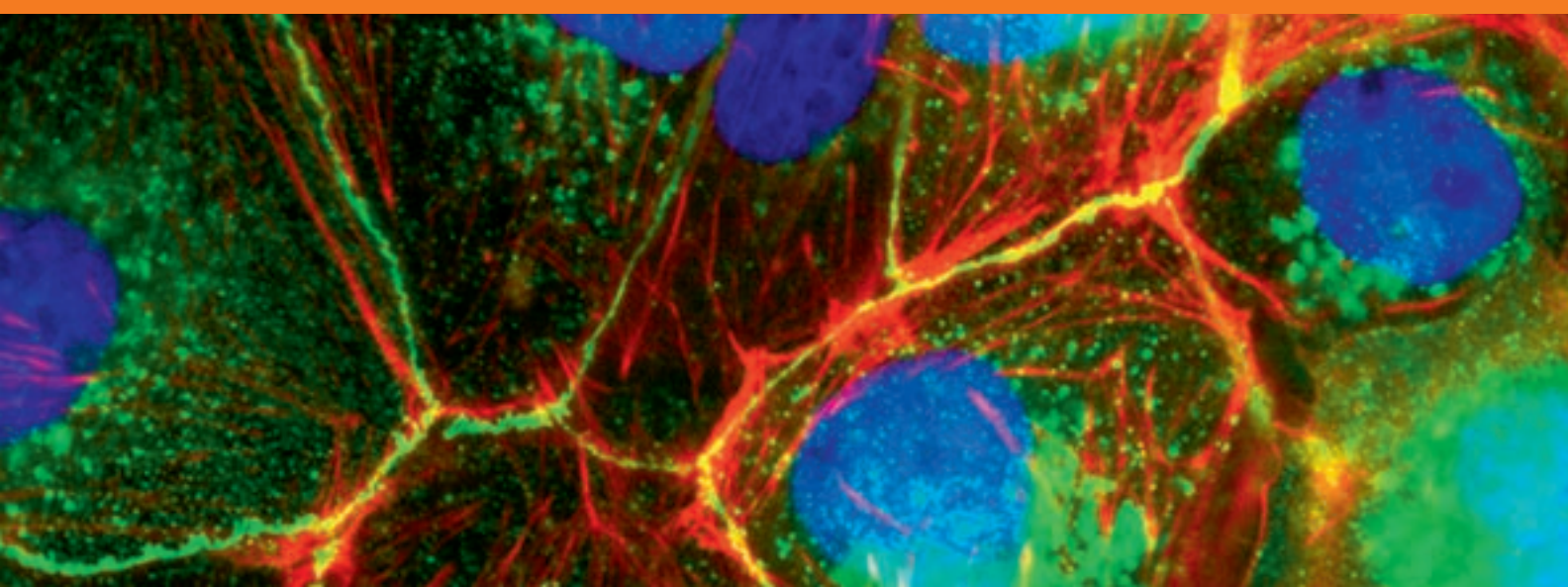
NASTECH™
PHARMACEUTICAL COMPANY INC.

PROGRESS THROUGH INNOVATION

2006 ANNUAL REPORT



OUR MISSION

WORKING TOGETHER TO DEVELOP AND COMMERCIALIZE INNOVATIVE PHARMACEUTICAL PRODUCTS BASED ON ACTIVE DELIVERY MOLECULES IN ORDER TO EFFECTIVELY TRANSPORT THERAPEUTIC DRUGS TO THEIR DISEASE TARGETS.

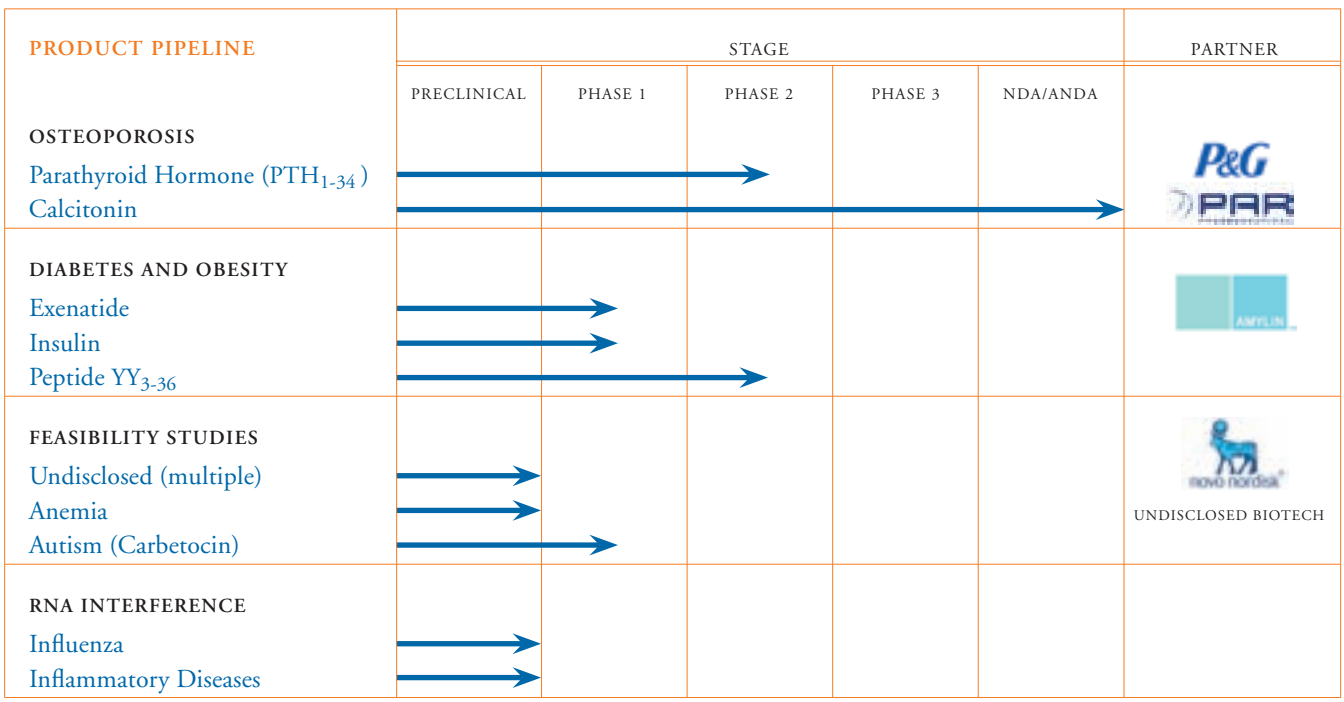
On the cover: Top: Segment of the chemical structure of a siRNA strand showing one of Nastech's proprietary technologies for improved RNAi therapeutics. *Bottom:* Image of cells separated by tight junctions which Nastech's drug delivery technology influences to enable non-injectable delivery of peptide and proteins.

TO OUR VALUED SHAREHOLDERS,

During 2006, we achieved three key strategic goals vital to building long-term shareholder value: first, we made significant progress in validating our intranasal peptide delivery technology; second, we secured the resources necessary to advance our portfolio of clinical development programs through Phase 2 proof-of-concept clinical studies; and third, we enhanced our substantial patent estate to better protect our investment in these programs.

In 2007, we will continue to execute our strategy to build a broad and deep portfolio of mid- to late-stage investigational drugs. This strategy is designed to manage the risks of drug development while retaining the significant upside potential that investors in biotechnology expect. Our diverse portfolio of therapeutic programs mitigates many of the risks associated with each compound's potential for development, regulatory and commercial success.

We are committed to building shareholder value in 2007 by advancing Phase 2 development of four major intranasal product opportunities: Parathyroid Hormone (PTH_{1-34}) for osteoporosis, in partnership with Procter & Gamble Pharmaceuticals, Peptide YY (PYY_{3-36}) for obesity, Insulin for diabetes, and Carbetocin for autism. Our mission is clear: develop innovative products for large markets with unmet medical needs through the use of our non-invasive, patient-friendly delivery solutions for proteins and peptides and to advance our RNA interference technology. Achievement of these objectives will enable us to make products that will compete effectively in the global pharmaceutical marketplace and expand the number of patients that can benefit from new therapeutics.



NOVEL PLATFORM TECHNOLOGIES PROVIDE THE FOUNDATION

Nastech is the industry leader in the field of molecular biology-based drug delivery, with two primary platform technologies: non-invasive, systemic delivery of proteins and peptides via intranasal administration and therapeutic development and delivery of siRNA (small interfering RNA). We have used these platform technologies to develop a pipeline of six clinical programs: two in osteoporosis; three in diabetes and obesity; and one in autism, in addition to four preclinical programs, with targets including influenza infection and rheumatoid arthritis.

Our technologies and programs have led to significant partnerships with leading pharmaceutical and biotechnology companies as well as academic and government organizations.

Our ability to harness the power of molecular biology to solve drug delivery problems is central to the development of a strong product pipeline and lucrative partnership opportunities.

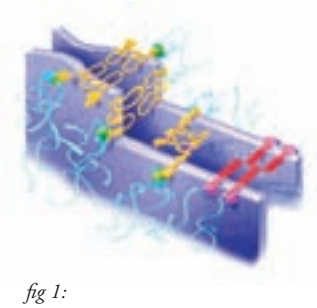


fig 1:
TIGHT JUNCTION DELIVERY
Molecular structure of the tight junction located between cells, which Nastech formulations affect to enable the non-invasive delivery of peptides and proteins through the nasal mucosa.

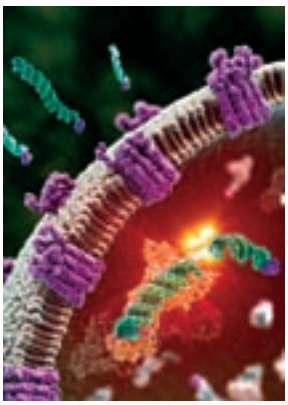


fig 2: siRNA DELIVERY
A conjugate consisting of a peptide (purple) and a RNA (green) that targets a specific cell-surface receptor which is then transported into the cell and binds to the Dicer enzyme (orange), which cleaves the RNA to the correct size for RNA interference.

PRODUCT DEVELOPMENT PROGRAMS TARGETING LARGE THERAPEUTIC MARKETS

NON-INVASIVE PEPTIDE AND PROTEIN DELIVERY: LEADING TECHNOLOGY GENERATING CURRENT OPPORTUNITIES

Nastech is using the tools of molecular biology to influence the natural pathway that exists between cells in our body, known as the "tight junction," enabling safe and effective delivery of peptides and proteins without a needle. Annual sales of injectable peptide and protein drugs are estimated at approximately $40 billion – a tremendous market opportunity for a non-invasive delivery solution. We have developed a pipeline of high-value product candidates using this fundamental technology.

Parathyroid Hormone (PTH_{1-34}) Nasal Spray for Osteoporosis

Nastech and Procter & Gamble made significant progress in the development of PTH_{1-34} Nasal Spray during 2006. Together, we gained important clinical information necessary to prepare for the planned Phase 3 pivotal study and commercialization.

In a Phase 1 pharmacokinetic study, our PTH_{1-34} Nasal Spray produced similar exposure levels compared to the approved injected product. This was a significant accomplishment and led to the initiation of a Phase 2 study designed to assess bone turnover markers in patients with low bone mass, measuring blood markers of both bone formation and bone resorption. These markers serve as surrogates by providing information as to how our nasal spray might affect bone mineral density (BMD) in patients. This is important as BMD would be the primary endpoint in a Phase 3 clinical trial. The results of the current Phase 2 study are expected in the second quarter of 2007 and will help us design the planned follow-on Phase 2 dose ranging study that will be conducted prior to the initiation of the Phase 3 clinical trial.

The value of our PTH_{1-34} Nasal Spray program is significant. During 2006, we received $17 million in a license fee and milestone payment, as well as millions of dollars in reimbursement for work relating to formulation development and scaling up our manufacturing for larger clinical studies. We have the potential to receive an additional $560 million in milestones, plus escalating double-digit royalties, manufacturing revenue and further reimbursement for development. The market potential for this product continues to expand as the injectable PTH_{1-34} product recorded 2006 sales of nearly $600 million. P&G is a leader in the osteoporosis drug category and we believe they will be successful in maximizing the potential of PTH_{1-34} Nasal Spray upon commercialization.

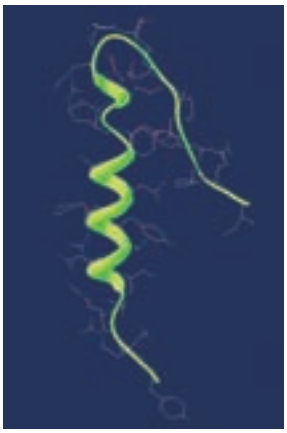
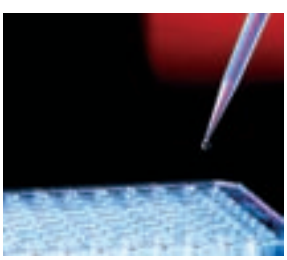


fig 3: PYY_{3-36}
PYY is a 34 amino acid peptide that has reduced caloric intake in obese patients following administration. This peptide, similar to others in Nastech's pipeline, would require administration intravenously or by an injection without Nastech's peptide and protein delivery technology.



Peptide YY_{3-36} Nasal Spray for Obesity

Peptide YY_{3-36} (PYY), a natural hormone, is a satiety agent that communicates to the brain the body's state of feeling full. PYY has been shown in multiple short-term clinical studies to produce a statistically significant reduction in caloric intake in obese subjects. Obesity continues to grow at an alarming rate with nearly two out of three Americans being categorized as overweight or clinically obese.

Nastech's PYY Nasal Spray program completed a Phase 1 dose ranging clinical study during 2006 in preparation for a six month Phase 2 weight loss clinical study that is planned to begin in the second half of 2007.

We believe that intranasal administration of PYY may offer a safe and effective method for treating obesity. If we are successful in achieving positive results in the Phase 2 proof-of-concept study the program would likely generate significant interest from prospective pharmaceutical partners due to the global problem with obesity.

Insulin Nasal Spray for Diabetes

In a Phase 1 clinical trial completed in 2006, we demonstrated that our Insulin Nasal Spray achieved peak concentration in the blood quicker than the most rapid acting injectable insulin on the market and Exubera®, Pfizer's FDA approved inhaled insulin. In this study, our nasal spray also provided significantly better bioavailability than Exubera®, the only available non-injected insulin. These results are promising as our nasal spray may offer a rapid acting, patient-friendly alternative to injection without the potential safety issues of pulmonary delivery. We continue to optimize the formulation and plan to initiate a Phase 2 study in diabetic patients during 2007.

Exenatide Nasal Spray for Diabetes

The Exenatide Nasal Spray program is an example of one way that Nastech is able to create valuable partnerships. Injectable exenatide, or Byetta®, is marketed by Amylin Pharmaceuticals, Inc. and Eli Lilly and Company as a twice-daily injection for diabetics to better control their glucose levels. Byetta® sales in 2006 rose to $430 million and are forecast to continue growing rapidly over the next several years. In the partnership with Amylin, Nastech conducted a feasibility program in which we developed a nasal spray that may provide patients with an alternative option for administering exenatide. Based on the success of this feasibility program, we entered into a development and commercialization partnership with Amylin. We have the potential to receive up to $89 million in development and commercialization milestones plus sales royalties. Amylin is currently progressing the product through Phase 1 clinical trials.

Carbetocin Nasal Spray for Autism

Nastech recently initiated development of Carbetocin Nasal Spray for treatment of symptoms related to autism. According to the Centers for Disease Control and Prevention, approximately 1 in 150 children have an Autism Spectrum Disorder (ASD) by age eight. Carbetocin is a closely related analog of a natural peptide called oxytocin. Results from a recent clinical study have demonstrated the potential for this class of molecules to reduce autism-related symptoms in adults. We look forward to moving this product into a Phase 2 trial this year.

Calcitonin Nasal Spray for Osteoporosis

Nastech's Calcitonin Nasal Spray generic drug application continues to make progress toward FDA approval. This product, if approved, would make available a lower cost generic generating savings for patients and healthcare providers. It would also provide a source of recurring cash flow that would help fund the development of our product candidates.

siRNA THERAPEUTICS: THE NEXT GENERATION OF THERAPEUTICS

Nastech's siRNA development and delivery technology platform has great potential in creating a new class of therapeutics which target diseases that result from the overproduction of a protein. The key to successful development of siRNA therapeutics is delivery. Nastech has developed and in-licensed technology to design and deliver highly potent siRNAs. Our preclinical studies for influenza and rheumatoid arthritis have produced results confirming that we can deliver the drug to the target and positively treat the condition.

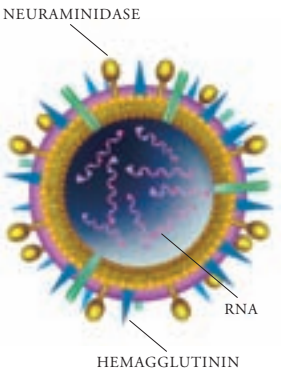


fig 4: INFLUENZA
Structure of the influenza virion. The hemagglutinin and neuraminidase proteins are shown on the surface of the particle and can typically undergo mutation, thereby creating new strains of the virus. Nastech's influenza program targets the RNA in the capsid shell that is highly conserved across influenza strains.

Influenza

In 2006, we demonstrated significant reductions in the levels of influenza virus in preclinical models using our siRNA technology. We have designed siRNAs that target the conserved regions of the influenza viral genome. This could enable a siRNA therapeutic to be effective against both current and future strains of the influenza virus. Nastech received $2.3 million in grant awards from the National Institutes of Health and has established a Cooperative Research and Development Agreement with Dr. Terrence Tumpey, a leader in research of pandemic flu, at the Centers for Disease Control for further development of our siRNA therapeutics. We look forward to advancing this technology toward human clinical studies.

Rheumatoid Arthritis

Nastech has developed siRNAs that target the over-expression of TNF-alpha, a protein associated with inflammation. Currently, this condition is being treated with monoclonal antibodies and soluble receptors, a multi-billion dollar market. Nastech has published preclinical data showing that we can reduce inflammation in the joints through systemic delivery of our siRNAs. With many diseases caused by the over-expression of a specific protein, this data was a crucial proof-of-concept as it shows the potential benefits of our technology in a number of disease areas.

TRANSFORMATION TO LATE STAGE CLINICAL PIPELINE IN 2007

Nastech has developed an outstanding team of more than 200 employees dedicated to aggressively advancing the company's programs in 2007. Positive clinical results and a strong balance sheet will enable us to bring multiple programs through Phase 2 clinical trials, which is key to establishing high-value partnerships. Nastech has the right people, science and pipeline to develop long-term partnerships that will build significant shareholder value.

We appreciate the support you have shown for our company and look forward to an excellent year.

Sincerely,

STEVEN C. QUAY, M.D., PH.D.
Chairman, President and Chief Executive Officer

May 2007

FORWARD-LOOKING STATEMENT
This Annual Report contains forward-looking statements and readers should carefully review the risk factors in Form 10-K included herein.

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New York, N.Y. 10022

INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS
KPMG LLP
801 Second Avenue
Seattle, W.A. 98104

PUBLIC RELATIONS
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727 7th Avenue
New York, N.Y. 10019
212-845-4235

STOCK LISTING
The Company's Common Stock is traded on the Nasdaq National Market System under the symbol NSTK.

ANNUAL MEETING
June 13, 2007
9:00 a.m.
The University Club
1 West 54th Street
New York, N.Y. 10019

ANNUAL REPORT ON FORM 10-K
The Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission, is available without charge by writing, phoning or visiting our website at www.nastech.com

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BOARD OF DIRECTORS

Steven C. Quay, M.D., Ph.D.
Chairman of the Board, President and Chief Executive Officer

Susan B. Bayh
Alexander D. Cross, Ph.D.
Ian R. Ferrier, M.D.
Myron Z. Holubiak
Leslie D. Michelson
John V. Pollock
Gerald T. Stanewick
Bruce R. Thaw
Devin N. Wenig

EXECUTIVE MANAGEMENT

Steven C. Quay, M.D., Ph.D.
Chairman of the Board, President and Chief Executive Officer

Philip C. Ranker
Chief Financial Officer and Corporate Secretary

Gordon C. Brandt, M.D.
Executive Vice President, Clinical Research and Medical Affairs

Paul H. Johnson, Ph.D.
Senior Vice President, Research & Development and Chief Scientific Officer

Timothy M. Duffy
Executive Vice President, Marketing and Business Development

David E. Wormuth
Senior Vice President, Operations

(Pictured left to right): Timothy Duffy, Gordon Brandt, Steven Quay, Phil Ranker, David Wormuth and Paul Johnson

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