July 2012

Focus on Nephrology, Endocrinology, Metabolism, & Gastroenterology

BIO serving as your Washington, D.C. office

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NIDDK SCIENTISTS: TWO DRUGS BETTER THAN ONE TO TREAT YOUTH WITH TYPE 2 DIABETES

A combination of two diabetes drugs, metformin and rosiglitazone, was more effective in treating youth with recent-onset type 2 diabetes than metformin alone, a study funded by NIDDK has found. Adding an intensive lifestyle intervention to metformin provided no more benefit than metformin therapy alone.

The study also found that metformin therapy alone was not an effective treatment for many of these youth. In fact, metformin had a much higher failure rate in study participants than has been reported in studies of adults treated with metformin alone. The Treatment Options for type 2 Diabetes in Adolescents and Youth (TODAY) study is the first major comparative effectiveness trial for the treatment of type 2 diabetes in young people. TODAY was funded by NIDDK.

"The results of this study tell us it might be good to start with a more aggressive drug treatment approach in youth with type 2 diabetes," said Philip Zeitler, M.D., Ph.D., the TODAY study chair and a pediatric endocrinologist at Children's Hospital Colorado, Aurora. "We are learning that type 2 diabetes is a more aggressive disease in youth than in adults and progresses more rapidly, which could be why metformin alone had a higher than expected failure rate."

The TODAY study tested how well and for how long each of three treatment approaches controlled blood glucose levels in youth enrolled from ages 10 to 17 with type 2 diabetes. Participants were randomly assigned to one of three treatment groups: metformin alone, metformin and rosiglitazone together, and metformin plus intensive lifestyle changes aimed at helping participants lose weight and increase physical activity.

The study found that treatment with metformin alone was inadequate for maintaining acceptable, long-term, blood glucose control in 51.7 percent of youth over an average follow-up of 46 months. The failure rate was 38.6 percent in the metformin and rosiglitazone group, a 25.3 percent reduction from metformin alone. In the metformin plus lifestyle group the failure rate was 46.6 percent.

"This important study provides much-needed information about how to treat type 2 diabetes in young people. Earlier studies in adults have shown that early, effective treatment can prevent serious and costly diabetes complications later in life," said NIDDK Director Griffin P. Rodgers, M.D. "Longer-term follow up will be important to understand whether more aggressive therapy for youth with type 2 diabetes will yield long-term benefits as they move into adulthood."

The study enrolled 699 youth who had type 2 diabetes for less than two years and a BMI at the 85th percentile or greater. Overweight children have a BMI at the 85th to 94th percentile for their age and sex, while obesity is defined as a BMI at the 95th percentile or more. The TODAY participants had an average BMI at the 98th percentile.

For more information on this research, click here.

"The results of this study tell us it might be good to start with a more aggressive drug treatment approach in youth with type 2 diabetes."

NEW TECHNOLOGIES AVAILABLE FOR LICENSING FROM THE NIH TECHNOLOGY TRANSFER OFFICE

Use of Englerin A, a Small Molecule HSF1 Activator, for the Treatment of Diabetes, Obesity, and Other Diseases Associated with Insulin Resistance

This technology claims methods for treating diseases or conditions associated with insulin resistance using the small molecule epoxy-guaiane derivative englerin A and related compounds. The inventors have shown that englerin A can also be used to treat insulin resistance. Insulin resistance is associated with reduced gene expression and production of heat shock protein 70 (HSP70). Using a mouse with tumor model, the inventors discovered that administration of englerin A decreases blood glucose levels by activating transcription of HSF1, thereby increasing the expression and secretion of HSP70.

Small-Molecule Modulators of Lipid Storage for Treatment of Obesity, Atherosclerosis, Metabolic Syndrome and Lipid Storage Diseases

This technology describes three novel structural classes of small-molecule compounds that significantly reduce the accumulation of lipid droplets. These compounds hold promise for the treatment of diseases associated with aberrant lipid deposition.

To learn more about this technology and to find others available for licensing, please click here.

FDA Gastrointestinal Drugs Advisory Committee

Upcoming Meeting

August 28, 2012
8:00 am

DoubleTree Hilton
Silver Spring, MD

FDA GASTROINTESTINAL DRUGS ADVISORY COMMITTEE MEETING

On August 28, 2012, the FDA Gastrointestinal Drugs Advisory Committee will meet to discuss the results from clinical trials of supplemental biologics license application (sBLA) 125057/232, for Humira (adalimumab), by Abbott Laboratories, for the proposed indication for reducing signs and symptoms, and achieving clinical remission in adult patients with moderately to severely active ulcerative colitis who have had an inadequate response to conventional therapy.

FDA intends to make background material available to the public no later than 2 business days before the meeting. If FDA is unable to post the background material on its Web site prior to the meeting, the background material will be made publicly available at the location of the advisory committee meeting, and the background material will be posted on FDA's Web site after the meeting. CDER will not be providing a webcast of the meeting.

For more information on this meeting, or to find the materials once they are posted, please click here.

FDA ENDOCRINOLOGIC AND METABOLIC DRUGS ADVISORY COMMITTEE MEETING

On May 10, 2012, the FDA Endocrinologic and Metabolic Drugs Advisory Committee met to discuss the safety and efficacy of new drug application (NDA) 22-529 (lorcaserin hydrochloride) tablets, manufactured by Arena Pharmaceuticals, Inc., as an adjunct to diet and exercise for weight management in patients with a body mass index (BMI) equal to or greater than 30 kilograms (kg) per square meter or a BMI equal to or greater than 27 kg per square meter if accompanied by weight-related co-morbidities.

Lorcaserin is a new molecular entity that targets activation of the serotonin 5HT2C receptor and is intended to promote weight loss in an obese population. Agonism at the intended target, 5HT2C, has been reasonably demonstrated to underlie the anorexigenic effect of lorcaserin.

In their resubmission, Arena presented additional studies to clarify discrepancies in the receptor potency data reported in the original NDA. The new studies were designed to address potential receptor reserve effects in the in vitro assay systems that may have overestimated receptor potency of lorcaserin in the prior studies.

The transcript, agenda, and materials for this meeting are posted online, including the sponsor's presentation to the Committee. To view these materials or to find out more information on this meeting, click here.

NCATS ANNOUNCES INSTITUTIONAL CTSAs

The CTSA program was initiated by the NIH in 2006 to transform the local, regional, and national environment for clinical and translational research. Under NCATS, the goal of the CTSA program remains focused on integrated academic homes for the clinical and translational sciences that increase the quality, safety, efficiency and speed of clinical and translational research, particularly for NIH supported research.

The NCATS CTSA program supports disease- and condition-specific networks funded by other NIH Institutes and Centers, but is disease agnostic in its resources and approach. The NCATS CTSA program will include Institutional CTSA Awards, which are the subject of this FOA, and Consortial Awards and Demonstration Projects which will be the subject of future solicitations.

Institutional CTSAs are made to degree granting institutions or groups of institutions that receive significant funding from the NIH. CTSAs require institutional commitment, the status of a major scientific and administrative entity within and across an applicant and partner institution(s), and a CTSA PD(s)/PI(s) with the authority and influence necessary to successfully create an institutional home for clinical and translational research.

To learn more about the NCATS Institutional CTSA program, click here.

NCATS Institutional CTSAs

Institutional Clinical and Translational Science Award (U54)

RFA-TR-12-006

Letter of Intent Due: **December 10, 2012**

Application Due: **January 8, 2013**

NIDDK FUNDING ANNOUNCEMENTS

PAR-12-172, Translational Research to Improve Obesity and Diabetes Outcomes (R18) – November 1, 2012

PAR-12-048, Prevention and Treatment of Obesity, Diabetes, and Chronic Kidney Disease in Military Populations (R01) – October 15, 2012

PA-12-157, Pilot and Feasibility Clinical Research Grants in Diabetes, and Endocrine and Metabolic Diseases (R21) – October 16, 2012

PA-12-125, Secondary Analyses in Obesity, Diabetes and Digestive and Kidney Diseases (R21) – May 8, 2015

PAR-11-352, Pilot and Feasibility Clinical Research Grants in Kidney or Urologic Diseases (R21) – January 8, 2015

PA-12-179, Exploratory/Developmental Clinical Research Grants in Obesity (R21) – October 16, 2012

PAR-12-173, Planning Grants for Translational Research to Improve Obesity and Diabetes Outcomes (R34) – March 3, 2015

For more information or to find more funding opportunities, please click here.

PATIENT ORGANIZATION EVENTS

Organization for Transplant Professionals	American Association of Kidney Patients	American Society of Nephrology
37th Annual Meeting August 12-15, 2012 Washington, DC	2012 Annual Patient Meeting August 9-11, 2012 Atlanta, Georgia	Kidney Week 2012 October 30-November 1, 2012 San Diego, California
Click here for more details.	Click here for more details.	Click here for more details.

CONGRESSIONAL HEARINGS ON BIOTECHNOLOGY

House Financial Services Committee, Subcommittee on Capital Markets
"The 10th Anniversary of the Sarbanes-Oxley Act" — July 26, 2012

At this hearing, the Capital Markets Subcommittee marked the ten-year anniversary of the Sarbanes-Oxley Act (SOX), passed in 2002. Industry representatives testified about the cost burden of SOX, especially the audit required by Section 404(b), and the impact that it can have on innovation and job creation. BIO Board Member Jeff Hatfield, CEO of Vitae Pharmaceuticals, testified about how the lack of product revenue during the biotech development process further increases the cost of the compliance burden.

House Committee on Oversight and Government Reform
"JOBS Act in Action: Overseeing Effective Implementation That Can Grow American Jobs" — June 26, 2012
"JOBS Act in Action, Part II: Overseeing Effective Implementation of the JOBS Act at the SEC" — June 28, 2012

This set of hearings focused on the implementation of the JOBS Act, which was signed into law on April 5. Witnesses and Congressmen spoke about the importance of effective implementation of the JOBS Act in order to maximize the effect its provisions will have on capital formation for growing companies. SEC Chairwoman Mary Schapiro also spoke, and gave the Committee an update on the progress the SEC is making on JOBS Act rule-making. She reported that the SEC would miss its deadline on both the Regulation D rules and the tick size study mandated by the JOBS Act (the deadline for both was July 4). She mentioned that the SEC was more optimistic about the timing of its crowdfunding rules, which are due by the end of the year.

House Committee on Energy and Commerce, Subcommittee on Health
"FDA User Fees 2012: How Innovation Helps Patients and Jobs" — April 18, 2012

At this hearing, the Health Subcommittee heard from witnesses about the importance of reauthorizing PDUFA and the impact that the FDA has on biopharmaceutical innovation and job creation. Dr. Janet Woodcock, Director of CDER at FDA, spoke about the steps FDA has taken to review and approve innovative medicines. Sara Radcliffe, EVP of Health, testified on BIO's behalf, providing the industry perspective on how important a functioning, flexible, and well-funded FDA is to the drug development process.

CAPITAL FORMATION LEGISLATION

H.R. 6161 – Fostering Innovation Act
This bill would amend the filing definitions in **SEC Rule 12b-2** to provide a more accurate picture of growing companies. Under the bill, public companies with a public float below $250 million or revenues below $100 million would be considered non-accelerated filers, providing them with **certain regulatory exemptions**, including from SOX compliance.
Sponsor: Rep. Mike Fitzpatrick (PA-8)
Status: Referred to the House Committee on Financial Services

S. 3232 – to Extend and Improve the Therapeutic Discovery Project
This bill would reauthorize the **Therapeutic Discovery Project** to cover qualifying investments made in 2011 and 2012. The bill would provide an additional $1 billion for the program and make several refinements to ensure that taxpayer dollars go to the most **deserving and innovative companies** and projects.
Sponsor: Sen. Robert Menendez (NJ)
Status: Referred to the Senate Committee on Finance

H.R. 1988 – Qualifying Therapeutic Discovery Project Tax Credit Extension Act
This bill would extend the **Therapeutic Discovery Project** through the year 2017 and fund it at **$1 billion per year**. Qualifying investments in years 2011 through 2015 would qualify for the credit or grant.
Sponsors: Rep. Susan Davis (CA-53) and Rep. Allyson Schwartz (PA-13)
Status: Referred to the House Committee on Energy and Commerce

Important Capital Formation Bills

TDP

S. 3232, Sen. Menendez

H.R. 1988, Reps. Davis & Schwartz

SOX & Rule 12b-2

H.R. 6161, Rep. Fitzpatrick

CONGRESS PASSES PDUFA REAUTHORIZATION & FDA REFORMS

On June 26, 2012, Congress passed the Food and Drug Administration Safety and Innovation Act (FDASIA) and President Obama signed the bill into law on July 16. FDASIA included a reauthorization of the Prescription Drug User Fee Act (PDUFA), along with numerous reforms to the FDA that BIO believes will speed the review and approval of new medicines.

Chief among the reforms are enhancements to the Accelerated Approval process, originally proposed in Sen. Hagan's TREAT Act and Reps. Stearns's and Towns's FAST Act. These changes will expand the applicability of Accelerated Approval and give the FDA the tools it needs to expedite the development of modern, targeted, and personalized therapies for patients suffering from serious and life-threatening diseases while preserving robust standards for safety and effectiveness. The new law also includes provisions to enhance the development and review of innovative new therapies through increased transparency and scientific dialogue, advancements in regulatory science, strengthened post-market review, and increased FDA access to external expertise during the drug review process.

Further, FDASIA includes the permanent reauthorization of the Best Pharmaceuticals for Children Act and the Pediatric Research Equity Act to encourage continued investment in pediatric research and help ensure that new drugs and biologics can be used safely and appropriately in pediatric patients.

For more information about FDASIA, please click here. BIO will be hosting two webinars in September to educate members about the provisions in the new law. If you are interested in attending one of these webinars, please email Charles Crain at ccrain@bio.org.

NEPHROLOGY/ENDOCRINOLOGY/METABOLISM/ GASTROENTEROLOGY-FOCUSED LEGISLATION

H.R. 6011 – Kidney Disease Equitable Access, Prevention, and Research Act
This bill would support research to improve access to high-quality kidney care, including understanding the progression of **kidney disease in minority populations** and recommendations on dialysis quality and care management research gaps.
Sponsor: Rep. John Lewis (GA-5)
Status: Referred to the House Committee on Energy and Commerce

H.R. 2194 – Gestational Diabetes Act (GEDI Act)
This bill would direct the CDC to develop a multisite gestational diabetes research project to expand and enhance surveillance data and **public health research on gestational diabetes** It would also require HHS to expand and intensify public health research on gestational diabetes by awarding **grants for demonstration projects** to reduce its incidence.
Sponsor: Rep. Eliot Engel (NY-17)
Status: Referred to the House Committee on Energy and Commerce

H.R. 2960 – National Diabetes Clinical Care Commission Act
This bill would establish a National Diabetes Clinical Care Commission at HHS to evaluate and make recommendations regarding better coordination and **leveraging of federal programs** that relate in any way to supporting appropriate clinical care for people with pre-diabetes and diabetes.
Sponsor: Rep. Pete Olson (TX-22)
Status: Referred to the House Committee on Energy and Commerce

H.R. 2239 – Functional Gastrointestinal and Motility Disorders Research Enhancement Act
This bill would require NIH to expand activities with respect to functional gastrointestinal and motility disorders (FGIMDs), including by providing support for the establishment of **centers of excellence on FGIMDs**.
Sponsor: Rep. James Sensenbrenner (WI-5)
Status: Referred to the House Committee on Energy and Commerce

H.R. 2741 – Preventing Diabetes in Medicare Act
This bill would extend Medicare coverage to medical nutrition therapy services for **people with pre-diabetes** and risk factors for developing type-2 diabetes.
Sponsor: Rep. Diana DeGette (CO-1)
Status: Referred to the House Committee on Energy and Commerce

BIO'S EMERGING COMPANIES

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BIO Meetings and Conferences

BIO India International Conference
September 12-13, 2012
Hyderabad, India

BIO Technology Transfer Symposium
October 8, 2012
San Francisco, California

BIO Investor Forum
October 9-10, 2012
San Francisco, California

BIO China
October 24-25, 2012
Shanghai, China

BIO Europe Fall
November 11-14, 2012
Hamburg, Germany

BIO Asia International Conference
January 29-30, 2013
Tokyo, Japan

For more about BIO events, please visit bio.org.

BIO HOLDING JOBS ACT WEBINARS

This spring, Congress passed the JOBS Act with broad, bipartisan majorities. When President Obama signed the bill into law, it immediately opened up new avenues for capital formation for emerging biotech companies. From changes to the IPO process for small companies to revamped private financing models, the JOBS Act has the potential to stimulate fundraising for important R&D.

Some of the provisions of the JOBS Act took effect upon enactment, while others are awaiting rulemaking by the SEC. Two upcoming webinars sponsored by BIO will provide companies with information on the key facets of the law and offer expert analysis on how to navigate the new rules. Speakers will also give updates on the status of pending regulation and offer a Q&A session with attendees on what to expect in the upcoming months and years and how companies can best take advantage of these new opportunities.

The webinars are scheduled for **Tuesday, September 18 at 2:00 pm (EDT)** and **Wednesday, October 3 at 2:00 pm (EDT)**. The webinars are free for all BIO R&D members and BIO state affiliates. Non-member R&D companies are invited to join for $100. For more information or to register for the webinars, please email Charles Crain at ccrain@bio.org.

BIO HOLDING FDASIA WEBINARS

BIO would like to invite you to participate in our upcoming educational webinar series in September on key provisions contained in the Food and Drug Administration Safety and Innovation Act (FDASIA), which became law on July 9, 2012. These webinars will provide information on the intent and goals of the provisions in FDASIA as well as discuss implementation issues and timelines. The webinars are free for all BIO R&D members and BIO state affiliates. Non-member R&D companies are invited to join for $100.

The first webinar, *PDUFA V: Enhanced Communications and NME Reviews*, will be held on **Thursday, September 13 at 2:00 pm (EDT)**. This webinar will focus on the enhanced communications and NME provisions that were agreed to by industry, stakeholders, and FDA as part of the PDUFA technical agreement.

The second webinar, *New and Enhanced Pathways: Expanded Accelerated Approval and Breakthrough Therapies*, will be held on **Wednesday, September 26 at 2:00 pm (EDT)**. This webinar will focus on two new and enhanced pathways, Enhanced Accelerated Approval and Breakthrough Therapies, that were passed into law as part of FDASIA. For more information or to register for either webinar, please email Charles Crain at ccrain@bio.org.