Collaborative Research Opportunity: The NIH Chemical Genomics Center is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize appropriate lead compounds described in U.S. Provisional Application No. 61/199,763. Please contact Dr. Craig J. Thomas via e-mail (*craigt@nhgri.nih.gov*) for more information.

Polyclonal Antibodies to the Kidney Protein Sodium-Hydrogen Exchanger 3 (NHE3)

Description of Technology: Antibodies to NHE3, useful for immunoblotting and immunocytochemistry, are available to resell for research purposes. NHE3 is a membrane Na+/H+ exchanger involved in maintenance of fluid volume homeostasis in the kidney. It is expressed on the apical membrane of the renal proximal tubule and plays a major role in NaCl and HCO_3 absorption. The inventor has developed rabbit polyclonal antibodies directed against a peptide sequence common to human, rat and mouse NHE3.

Applications: Western blotting and immunocytochemistry.

Inventor: Mark A. Knepper (NHLBI).

Related Publication: Unpublished.

Patent Status: HHS Reference No. E–253–2008/0—Research Tool. Patent protection is not being pursued for this technology.

Licensing Status: This technology is available as a research tool under a Biological Materials License.

Licensing Contact: Steve Standley, Ph.D.; 301–435–4074; *sstand@od.nih.gov*.

Polyclonal Antibodies to Thiazide-Sensitive Sodium-Chloride Cotransporter (NCC)

Description of Technology: Antibodies to thiazide-sensitive sodium-chloride cotransporter (NCC), useful for immunoblotting and immunocytochemistry, are available to resell for research purposes. NCC is found on the apical membrane of the distal convoluted tubule, where it is the principal mediator of Na+ and CI reabsorption in this segment of the nephron. NCC is the target of thiazide diuretics used in the treatment of hypertension. The inventors have developed rabbit polyclonal antibodies directed against a peptide sequence in the C-terminal region of NCC.

Applications: Western blotting and immunohistochemistry.

Inventor: Mark A. Knepper (NHLBI).

Related Publication: HL Biner, MP Arpin-Bott, J Loffing, X Wang, M Knepper, SC Hebert, B Kaissling. Human cortical distal nephron: distribution of electrolyte and water transport pathways. J Am Soc Nephrol. 2002 Apr;13(4):836–847.

Patent Status: HHS Reference No. E–254–2008/0—Research Tool. Patent protection is not being pursued for this technology.

Licensing Status: This technology is available as a research tool under a Biological Materials License.

Licensing Contact: Steve Standley, Ph.D.; 301–435–4074; *sstand@od.nih.gov*.

Polyclonal Antibodies to NKCC2, a Kidney-Specific Member of the Cation Chloride Co-transporter Family, SLC12A1

Description of Technology: Antibodies to NKCC2, useful for immunoblotting and immunocytochemistry, are available to resell for research purposes. NKCC2 is found on the apical surface of the thick ascending limb of the loop of Henle, where it facilitates transport of sodium, potassium, and chloride ions from the lumen of the renal thick ascending limb into the cell. Transport of sodium dilutes the luminal fluid, decreasing its osmolality creating an osmotic driving force for water reabsorption in the connecting tubule and cortical collecting duct under the influence of the hormone vasopressin. NKCC2 is blocked by loop diuretics such as furosemide. The inventor has developed rabbit polyclonal antibodies directed against a peptide sequence in the N-terminal tail of NKCC2.

Applications: Western blotting and immunocytochemistry.

Inventor: Mark A. Knepper (NHLBI).

Related Publications:

1. GH Kim, CA Ecelbarger, C Mitchell, RK Packer, JB Wade, MA Knepper. Vasopressin increases Na-K–2CI cotransporter expression in thick ascending limb of Henle's loop. Am J Physiol. 1999 Jan;276(1 Pt 2):F96–F103.

2. HL Brooks, AJ Allred, KT Beutler, TM Cofiman, MA Knepper. Targeted proteomic profiling of renal Na+ transporter and channel abundances in angiotensin II type 1a receptor knockout mice. Hypertension. 2002 Feb;39(2 Pt 2):470–473.

Patent Status: HHS Reference No. E–255–2008/0—Research Tool. Patent protection is not being pursued for this technology.

Licensing Status: This technology is available as a research tool under a Biological Materials License.

Licensing Contact: Steve Standley, Ph.D.; 301–435–4074; *sstand@od.nih.gov*.

Polyclonal Antibodies to the Kidney Protein Urea Transporter 1 (UTA1)

Description of Technology: Antibodies to UTA1, useful for immunoblotting and immunocytochemistry, are available to resell for research purposes. Urea Transporter 1 (UTA1) is activated by vasopressin and is responsible for urea transport across the apical membrane into the intracellular space within the renal inner medullary collecting duct. The inventor has developed rabbit polyclonal antibodies directed against a peptide sequence in human UTA1. Antibody also recognizes UTA3, another product of the same gene.

Applications: Western blotting and immunocytochemistry.

Inventor: Mark A. Knepper (NHLBI).

Related Publication: S Nielsen, J Terris, CP Smith, MA Hediger, CA Ecelbarger, MA Knepper. Cellular and subcellular localization of the vasopressin-regulated urea transporter in rat kidney. Proc Natl Acad Sci USA. 1996 May 28;93(11):5495–500.

Patent Status: HHS Reference No. E–268–2008/0—Research Tool. Patent protection is not being pursued for this technology.

Licensing Status: This technology is available as a research tool under a Biological Materials License.

Licensing Contact: Steve Standley, Ph.D.; 301–435–4074; *sstand@od.nih.gov*.

Dated: April 28, 2009.

Richard U. Rodriguez,

Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

[FR Doc. E9–10452 Filed 5–5–09; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, Public Health Service, HHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 207 to achieve expeditious commercialization of results of federally-funded research and

development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

ADDRESSES: Licensing information and copies of the U.S. patent applications listed below may be obtained by writing to the indicated licensing contact at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804; *telephone:* 301/496–7057; *fax:* 301/402–0220. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

Genetic Mutations Associated With Stuttering

Description of Technology: NIH investigators, for the first time, identified specific mutations associated with stuttering. These mutations are located within the genes encoding three enzymes, Glc-NAc phosphotransferase catalytic subunit [GNPTAB], Glc-NAc phosphotransferase recognition subunit [GNPTG], and N-acetylglucosamine-1-phosphodiester alpha-N-acetylglucosaminidase [NAGPA]. Together these constitute the pathway that targets lysosomal enzymes to their proper location. This pathway is associated with lysosomal storage disorders, and thereby this discovery provides potential novel therapeutic targets for amelioration of stuttering. This discovery has the potential to facilitate DNA-based (micro-array) testing among individuals who stutter, as well as enzyme-replacement therapy and small-molecule chaperone therapy for treatment of stuttering. The mutations described in this invention may account for up to 5–10% of this disorder in individuals who stutter, estimated to represent 60,000–120,000 individuals in the United States.

Applications: Genetic diagnosis of stuttering disorder; Therapeutics for stuttering disorder.

Development Status: Early stage.

Market: According to the Stuttering Foundation of America, stuttering affects over 3 million individuals in the United States.

Inventors: Dennis T. Drayna (NIDCD), Changsoo P. Kang (NIDCD), et al.

Patent Status: U.S. Provisional Application No. 61/150,954 filed 02 Feb 2009 (HHS Reference No. E–084–2009/0–US–01).

Licensing Status: Available for licensing.

Licensing Contact: Suryanarayana (Sury) Vepa, Ph.D., J.D.; 301–435–5020; *vepas@mail.nih.gov*.

Mast Cells Defective in the Syk Protein Tyrosine Kinase

Description of Technology: NIH investigators, through screening for variants of RBL–2H3 cells, have identified and developed TB1A2 mast cells that are defective in the expression of the Syk protein tyrosine kinase. These cells had no detectable Syk protein by immunoblotting or in vitro kinase reaction, and no detectable Syk mRNA by Northern hybridization. These TB1A2 cells failed to secrete or generate cytokines after high affinity receptor for immunoglobulin E (Fc epsilon RI) stimulation. In these Syk-deficient TB1A2 cells, aggregation of these receptors did not induce histamine release and there was no detectable increase in total cellular protein tyrosine phosphorylation. However, stimulation of these cells with the calcium ionophore did induce degranulation. These cells provide a useful experimental model to study the role of Syk tyrosine kinase in signal transduction pathways in immune cells.

Inventors: Juan Zhang, Elsa H. Berenstein, and Reuben P. Siraganian (NIDCR).

Publication: J Zhang, EH Berenstein, RL Evans, RP Siraganian. Transfection of Syk protein tyrosine kinase reconstitutes high affinity IgE receptor-mediated degranulation in a Syk-negative variant of rat basophilic leukemia RBL–2H3 cells. J Exp Med. 1996 July 1;184(1):71–79.

Patent Status: HHS Reference No. E–342–2008/0—Research Tool. Patent protection is not being pursued for this technology.

Licensing Status: Available for licensing under a Biological Materials License Agreement.

Licensing Contact: Suryanarayana (Sury) Vepa, Ph.D., J.D.; 301–435–5020; *vepas@mail.nih.gov*.

Collaborative Research Opportunity: The National Institute of Dental and Craniofacial Research, Oral Infection and Immunity Branch, Receptors and Signal Transduction Section, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact David W. Bradley, Ph.D. at 301–402–0540 or *bradleyda@nidcr.nih.gov* for more information.

Novel Means of Regulation of Gene Expression: Modular and Artificial Splicing Factors

Description of Technology: This discovery provides a new therapeutic approach for treatment of diseases caused by altered gene regulation resulting from defective alternative splicing of genes. This technology offers the following advantages over currently available methods for regulating splicing: (a) Delivery can be through standard gene therapy methods, such as viral vectors, (b) site of delivery of the artificial splicing factors can be controlled, which enables targeted expression and limited side effects, and (c) the artificial splicing factors described here can be readily adapted to a variety of splicing effector modules. This invention provides proteins that combine an RNA recognition module that can specifically target an endogenous pre-mRNA with splicing effector modules that alter splicing to favor a particular isoform of a mature mRNA.

The artificial splicing factors disclosed here can be used to treat conditions requiring directed alternative splicing. For example, the artificial splicing factors described here can be used in combination with other anti-tumor drugs as a cancer treatment. Other examples where this technology may find use include diabetes (insulin receptor), psoriasis (fibronectin), polycystic kidney disease (PKD2), and prostate cancer (fibroblast growth factor receptor 2).

Applications: Therapeutics for diabetes, psoriasis, polycystic kidney disease, and prostate cancer; Research Tools.

Development Status: Early stage.

Inventors: Traci M. T. Hall (NIEHS), et al.

Patent Status: U.S. Provisional Application No. 61/140,326 filed 23 Dec 2008 (HHS Reference No. E–334–2008/0–US–01).

Licensing Status: Available for licensing.

Licensing Contact: Suryanarayana (Sury) Vepa, Ph.D., J.D.; 301–435–5020; *vepas@mail.nih.gov*.

Collaborative Research Opportunity: The NIEHS Division of Intramural Research is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize Modular and Artificial Splicing Factors. Please contact Elizabeth M. Denholm, Ph.D. at 919–541–0981 or *denholme@niehs.nih.gov* or Traci Hall, Ph.D. at *hall4@niehs.nih.gov* for more information.

Dated: April 29, 2009.

Richard U. Rodriguez,

Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

[FR Doc. E9–10450 Filed 5–5–09; 8:45 am]

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