care providers who are educated and motivated to counsel, diagnose, treat, and medically manage people with HIV disease and to help prevent high-risk behaviors that lead to HIV transmission. The Division also implements the Global HIV/AIDS Program as part of the President’s Emergency Plan for AIDS Relief (PEPFAR) to manage international programs designed to provide direct care and treatment for people living with HIV/AIDS and to strengthen health systems for delivery of prevention, care and treatment services for people living with HIV/AIDS in PEPFAR funded countries. The Division will translate lessons learned from both the Global HIV/AIDS Programs and Special Projects of National Significance projects to the Part A, B, C, D, and F grantees. In collaboration with the Division of Policy and Data, the Division assesses effectiveness of Technical Assistance efforts/initiatives, identifies new Technical Assistance needs and priority areas, and participates in the Bureau-wide Technical Assistance workgroup.

Section RV–30, Delegations of Authority

All delegations of authority and re-delegations of authority made to HHS officials that were in effect immediately prior to this reorganization, and that are consistent with this reorganization, shall continue in effect pending further re-delegation. This reorganization is effective upon date of signature.


Mary K. Wakefield, Administrator.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service

Indian Health Professions Preparatory, Indian Health Professions Pre-graduate and Indian Health Professions Scholarship Programs

Overview Information: Indian Health Professions Preparatory, Indian Health Professions Pre-graduate and Indian Health Professions Scholarship Programs.

Announcement Type: Initial.

CFDA Numbers: 93.971, 93.123, and 93.972.

Key Dates:

Application Deadline: May 7, 2012, for continuing students.

Application Deadline: May 7, 2012, for new students.


Award Start Date: August 1, 2012.

I. Funding Opportunity Description

The Indian Health Service (IHS) is committed to encouraging American Indians and Alaska Natives to enter the health professions and to assuring the availability of Indian health professionals to provide health care services to Indians. The IHS is committed to the recruitment of students for the following programs:

- The Indian Health Professions Preparatory Scholarship authorized by section 103 of the Indian Health Care Improvement Act (IHCIA), Public Law 94–437 (1976).

- The Indian Health Professions Pre-graduate Scholarship authorized by section 103 of the IHCIA, Public Law 94–437 (1976).

- The Indian Health Professions Scholarship authorized by section 104 of the IHCIA, Public Law 94–437 (1976).

Full-time and part-time scholarships will be funded for each of the three scholarship programs.

The scholarship award selections and funding are subject to availability of funds appropriated for the Scholarship Program.

II. Award Information

Awards under this initiative will be administered using the grant mechanism of the IHS.

Estimated Funds Available: An estimated $14.0 million will be available for FY 2012 awards. Of this estimated $14.0 million in funding, no more than $1.0 million will be set aside for Preparatory and Pre-graduate Scholarships, with the remaining balance to be used toward Health Professions Scholarships. The IHS program anticipates, but cannot guarantee, due to possible funding changes, student scholarship selections from any or all of the following disciplines in the 103, 103P and 104 Programs for the Scholarship Period 2012–2013. Due to the rising cost of education and the decreasing number of scholars who can be funded by the IHS Scholarship Program (IHSSP), the IHSSP has changed the funding policy for Preparatory and Pre-graduate scholarship awards and reallocated a greater percentage of its funding in an effort to increase the number of Health Professions scholarships, and inherently the number of service obligated scholars, to better meet the health care provider needs of the IHS and its Tribal and Urban Indian health care system partners.

Anticipated Number of Awards: Approximately 25 awards will be made under the Health Professions Preparatory and Pre-graduate Scholarship Programs for Indians. The awards are for tuition and fees only and the average award to a full-time student is approximately $10,701.35. An estimated 280 awards will be made under the Indian Health Professions Scholarship Program. The awards are for 12 months in duration, and will cover both tuition and fees and Other Related Costs (ORC). The average award to a full-time student is approximately $48,056.05. In FY 2012, an estimated $9,500,000 is available for continuation awards, and an estimated $3,500,000 is available for new awards.

Project Period—The project period for the IHS Health Professions Preparatory Scholarship support, tuition and fees only, is limited to two years for full-time students and the part-time equivalent of two years, not to exceed four years for part-time students. The project period for the Health Professions Pre-graduate Scholarship support, tuition and fees only, is limited to four years for full-time students and the part-time equivalent of four years, not to exceed eight years for part-time students.

The IHS Indian Health Professions Scholarship support, tuition, fees and Other Related Costs (ORC) is limited to four years for full-time students and the part-time equivalent of four years, not to exceed eight years for part-time students.

III. Eligibility Information

This announcement is a limited competition for awards made to American Indians (Federally recognized Tribal members, state recognized Tribal members, and first and second degree descendants of Federal or state recognized Tribal members), or Alaska Natives only. Continuation awards are non-competitive.

1. Eligible Applicants

The Health Professions Preparatory Scholarship awards made to American Indians (Federally recognized Tribal members, first and second degree descendants of Tribal members, and state recognized Tribal members, first and second degree descendants of Tribal members), or Alaska Natives who:

- Have successfully completed high school education or high school equivalency; and
- Have been accepted for enrollment in a compensatory, pre-professional general education course or curriculum; and

The Health Professions Pre-graduate Scholarship awards are made to
American Indians (Federally recognized Tribal members, first and second degree descendants of Tribal members, and state recognized Tribal members, first and second degree descendants of Tribal members), or Alaska Natives who:

- Have successfully completed high school education or high school equivalency; and
- Have been accepted for enrollment or are enrolled in an accredited pre-graduate program leading to a baccalaureate degree in pre-medicine, pre-dentistry, or pre-podiatry.

The Indian Health Professions Scholarship may be awarded only to an individual who is a member of a Federally recognized Indian Tribe or Alaska Native as provided by section 4(c), and 4(d) of the IHCIA. Membership in a Tribe recognized only by a state does not meet this statutory requirement. To receive an Indian Health Professions Scholarship, an otherwise eligible individual must be enrolled in an appropriately accredited school and pursuing a course of study in a health profession as defined by section 4(10) of the IHCIA.

2. Cost Sharing/Matching

The Scholarship Program does not require matching funds or cost sharing to participate in the competitive grant process.

3. Benefits from State, Local and Other Federal Sources

Awardees of the Health Professions Preparatory or Health Professions Pre-graduate scholarship may accept outside funding from other scholarship, grant, fee waiver and student loan programs to assist with their education and other related expenses. Awardees of the Health Professions scholarship, who accept outside funding from other scholarship, grant and fee waiver programs, will have these monies applied to their student account tuition and fees charges at the college or university they are attending, before the IHS Scholarship Program will pay any of the remaining balance. These outside funding sources must be reported on the student’s invoicing documents submitted by the college or university they are attending. Student loans accepted by Health Professions scholarship recipients will have no effect on the IHS Scholarship program payment made to their college or university.

IV. Application Submission Information

1. Address To Request Application Package

Now applicants are responsible for contacting and requesting an application packet from their IHS Area Scholarship Coordinator. They are listed on the IHS Web site at http://www.scholarship.ihs.gov/area_coordiators.cf.

This information is also listed below. Please review the following list to identify the appropriate IHS Area Scholarship Coordinator for your State. Application packets may be obtained by calling or writing to the following individuals listed below:

<table>
<thead>
<tr>
<th>IHS Area office and States/locality served</th>
<th>Scholarship coordinator/address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen Area IHS:</td>
<td>Ms. Kim Annis, IHS Area Scholarship Coordinator, Aberdeen Area IHS, 115 4th Avenue SE., Aberdeen, SD 57401, Tele: (605) 226–7466.</td>
</tr>
<tr>
<td>Arizona, Nevada, Utah</td>
<td>Ms. Trudy Begay, IHS Area Scholarship Coordinator, Phoenix Area IHS, Suite 510, 40 North Central Avenue, Phoenix, AZ 85004, Tele: (602) 364–5256.</td>
</tr>
<tr>
<td>Alaska Native Tribal Health Consortium:</td>
<td>Ms. Courtney Bridges, Alternate: Ms. Tasha Hotch, IHS Area Scholarship Coordinator, 4000 Ambassador Drive, Anchorage, AK 99508, Tele: (907) 729–1913, 1–800–684–8361 (toll free).</td>
</tr>
<tr>
<td>Alaska</td>
<td>Ms. Mona Celli, IHS Area Scholarship Coordinator, 4000 Ambassador Drive, Anchorage, AK 99508, Tele: (907) 729–1913, 1–800–684–8361 (toll free).</td>
</tr>
<tr>
<td>Albuquerque Area IHS:</td>
<td>Ms. Aletha John, IHS Area Scholarship Coordinator, Navajo Area IHS, P.O. Box 9020, Window Rock, AZ 86515, Tele: (928) 871–1360.</td>
</tr>
<tr>
<td>Arizona, New Mexico</td>
<td>Mr. Keith Bohanan, IHS Area Scholarship Coordinator, Oklahoma Area IHS, 701 Market Drive, Oklahoma City, OK 73114, Tele: (405) 951–3879, 1–800–722–3357 (toll free).</td>
</tr>
<tr>
<td>Oklahoma City Area IHS:</td>
<td>Mr. Richard F. Coyle, IHS Area Scholarship Coordinator, Oklahoma City Area IHS, 701 Market Drive, Oklahoma City, OK 73114, Tele: (405) 951–3879, 1–800–722–3357 (toll free).</td>
</tr>
<tr>
<td>Arkansas, Louisiana, Mississippi, New York</td>
<td>Ms. Michelle Marshalek, IHS Area Scholarship Coordinator, Nashville Area IHS, 711 Stewarts Ferry Pike, Nashville, TN 37214, Tele: (615) 467–1505.</td>
</tr>
<tr>
<td>Montana, Wyoming</td>
<td>Ms. Trudy Begay, IHS Area Scholarship Coordinator, Phoenix Area IHS, Suite 510, 40 North Central Avenue, Phoenix, AZ 85004, Tele: (602) 364–5256.</td>
</tr>
</tbody>
</table>
2. Content and Form Submission

Each applicant will be responsible for submitting a completed application (Forms IHS–856–1 through 856–6) and one copy to the: IHS Scholarship Program Branch Office, 801 Thompson Ave, Suite 450 (TMP), Rockville, MD 20852. Electronic applications are being accepted for this cycle. Go to www.scholarship.ihs.gov for more information on how to apply electronically. The on-line portal will be open on December 12, 2011. The application will be considered complete if the following documents (original and one copy) are included:

a. Completed and signed application Checklist.

b. Original, signed, complete application form IHS–856 (for continuation students-Data Sheet in place of IHS–856).

c. Current Letter of Acceptance from College/University or Proof of Application to a College/University or Health Professions Program.

d. Official transcripts for all colleges/universities attended (or high school transcripts or Certificate of Completion of Home School Program for applicants who have not taken college courses).

e. Cumulative GPA: Applicant’s calculations.

f. Applicant’s Documents for Indian Eligibility.

i. If you are a member of a Federally recognized Tribe or Alaska Native (recognized by the Secretary of the Interior), provide evidence of membership such as:

1. Certification of Tribal enrollment by the Secretary of the Interior, acting through the Bureau of Indian Affairs (BIA Certification: Form 4432–Category A or D, whichever is applicable); or

2. In the absence of BIA certification, documentation that you meet requirements of Tribal membership as prescribed by the charter, articles of incorporation or other legal instrument of the Tribe and have been officially designated as a Tribal member as evidenced by an accompanying document signed by an authorized Tribal official, or

3. Other evidence of Tribal membership satisfactory to the Secretary of the Interior.

ii. If you are a member of a Tribe terminated since 1940 or a State recognized Tribe and first or second degree descendant, provide official documentation that you meet the requirements of Tribal membership as prescribed by the charter, articles of incorporation or other legal instrument of the Tribe and have been officially designated as a Tribal member as evidenced by an accompanying document signed by an authorized Tribal official; or other evidence, satisfactory to the Secretary of the Interior, that you are a member of the Tribe. In addition, if the terminated or state recognized Tribe of which you are a member is not on a list of such Tribes published by the Secretary of the Interior in the Federal Register, you must submit an official signed document that the Tribe has been terminated since 1940 or is recognized by the state in which the Tribe is located in accordance with the law of that state.

iii. If you are not a Tribal member but are a natural child or grandchild of a Tribal member you must submit: (1) evidence of that fact, e.g., your birth certificate and/or your parent’s/grandparent’s birth/death certificate showing the name of the Tribal member; and (2) evidence of your parent’s or grandparent’s Tribal membership in accordance with paragraphs A and B. The relationship to the Tribal member must be clearly documented. Failure to submit the required documentation will result in the application not being accepted for review.

Note: If you meet the criteria of B or C, you are eligible only for the Preparatory or Pre-graduate Scholarships.

- Two Faculty/Employee Evaluations with original signature.
- Reasons for Requesting the Scholarship.
- Delinquent Debt Form.
- Course Curriculum Verification with original signature.
- Acknowledgement Card (if submitting a hard copy application).
- Curriculum for Major.

3. Submission Dates and Times

Application Receipt Date: The application deadline for New applicants is Monday, May 7, 2012. Applications (original and one copy) shall be considered as meeting the deadline if they are received by the IHS Scholarship Program Branch Office, located in Rockville, Maryland, and postmarked on or before the deadline date. Applicants should request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or U.S. Postal Service. Private metered postmarks will not be acceptable as proof of timely mailing and will not be considered for funding. Once the application is received, the applicant will receive an “Acknowledgement of Receipt of Application” (IHS–815) card that is included in the application packet, if submitting a hard copy application. Applications received, with postmarks after the announced deadline date, will not be considered for funding.

4. Intergovernmental Review

Executive Order 12372 requiring intergovernmental review is not applicable to this program.

5. Funding Restrictions

No more than 5% of available funds will be used for part-time scholarships this fiscal year. Students are considered part-time if they are enrolled for a minimum of six hours of instruction and are not considered in full-time status by their college/university. Documentation must be received from part-time applicants that their school and course curriculum allows less than full-time status. Both part-time and full-time scholarship awards will be made in accordance with 42 CFR 136.320, 136.330 and 136.370 and this information will be published in all IHHSSP Applications and Student Handbooks as they pertain to the Indian Health Service Scholarship Program.

6. Other Submissions Requirements

New applicants are responsible for using the online application or contacting and requesting an application packet from their IHS Area Scholarship Coordinator. Continuation students are also encouraged to use the online application process; however, the Division of Grants Management will also mail continuation students an application packet. If you do not receive this information, please contact your IHS Area Scholarship Coordinator or...
your IHS Scholarship Program Analyst to request a continuation application.

Continuing students must submit a complete application (original plus one copy) and meet the deadline of Monday, May 7, 2012; there will be no exceptions.

V. Application Review Information

1. Criteria

Applications will be reviewed and scored with the following criteria.

• Needs of the IHS (Health Personnel Needs in Indian Country)

Applicants are considered for scholarship awards based on their desired career goals and how these goals relate to current Indian health personnel needs. Applications for each health career category are reviewed and ranked separately.

• Academic Performance (40 Points)

Applicants are rated according to their academic performance as evidenced by transcripts and faculty evaluations. In cases where a particular applicant’s school has a policy not to rank students academically, faculty members are asked to provide a personal judgment of the applicant’s achievement. Health Professions applicants with a cumulative GPA below 2.0 are not eligible for award.

• Faculty/Employer Recommendations (30 Points)

Applicants are rated according to evaluations by faculty members, current and/or former employers and Tribal officials regarding the applicant’s potential in the chosen health related professions.

• Stated Reasons for Asking for the Scholarship and Stated Career Goals (30 Points)

Applicants must provide a brief written explanation of reasons for asking for the scholarship and of their career goals. The applicant’s narrative will be judged on how well it is written and its content.

• Applicants who are closest to graduation or completion of training are awarded first. For example, senior and junior applicants under the Health Professions Pre-graduate Scholarship receives funding before freshmen and sophomores.

• Priority Categories

The following is a list of health professions that will be considered for funding in each scholarship program in FY 2012.

• Indian Health Professions Preparatory Scholarships

A. Pre-Clinical Psychology (Jr. and Sr. undergraduate years).
B. Pre-Nursing.
C. Pre-Pharmacy.
D. Pre-Social Work (Jr. and Sr. preparing for an MS in social work).

• Indian Health Professions Pre-Graduate Scholarships

A. Pre-Dentistry.
B. Pre-Medicine.
C. Pre-Podiatry.

• Indian Health Professions Scholarship

A. Bio Medical Engineering—BS.
B. Bio Medical Technology—AAS.
C. Chemical Dependency Counseling—Master’s Degrees.
D. Clinical Psychology—Ph.D. or Psy.D.
E. Dentistry: DDS or DMD degrees
F. Diagnostic Radiology Technology: Associates and B.S.
G. Environmental Health/Sanitarian: B.S.
H. Health Records Administration: R.H.I.T. and R.H.I.A.
I. Medical Technology: B.S.
J. Medicine: Allopathic and Osteopathic.
K. Nurse: Associate and Bachelor Degrees and advanced degrees in Psychiatry, Geriatrics, Women’s Health, Pediatrics, Family Health, and Nurse Anesthetist.

(Preference consideration will be given to Registered Nurses employed by the IHS; in a program conducted under a contract or compact entered into under the Indian Self-Determination Act and Education Assistance Act (Pub. L. 93–638) and its amendments; or in a program assisted under Title V of the IHCIA.)

L. Occupational Therapy: B.S. or Masters.
N. Pharmac: Pharm.D.
O. Physician Assistant: PA–C.
P. Physical Therapy: M.S. and D.P.T.
Q Podiatry: D.P.M.
R. Public Health Nutritionist: M.S.
S. Respiratory Therapy: BS Degree.
T. Social Work: Masters Level only (Direct Practice and Clinical concentrations).
U. Ultrasonography (Prerequisite: Diagnostic Radiology Technology).

2. Review and Selection Process

The applications will be reviewed and scored by the IHS Scholarship Program’s Application Review Committee appointed by the IHS. Each reviewer will not be allowed to review an application from his/her Area or his/her own Tribe. Each application will be reviewed by three reviewers. The average score of the three reviews provide the final Ranking Score for each applicant. To determine the ranking of each applicant, these scores are sorted from the highest to the lowest within each scholarship section, health discipline, enrollment status, date of graduation, and score. If several students have the same date of graduation and score within the same discipline, computer ranking list will randomly sort and will not be sorted by alphabetical name. Selections are then made from the top of each ranking list to the extent that funds allocated by the IHS among the three scholarships are available for obligation.

VI. Award Administration Information

1. Award Notices

It is anticipated that continuing applicants will be notified in writing during the first week of June and new applicants will be notified in writing during the first week of July 2012. An Award Letter will be issued to successful applicants. Unsuccessful applicants will be notified in writing, which will include a brief explanation of the reasons the application was not successful and provide the name of the IHS official to contact if more information is desired.

2. Administrative and National Policy Requirements

Regulations at 42 CFR 136.304 provide that the IHS shall, from time to time, publish a list of health professions eligible for consideration for the award of IHS Indian Health Professions Preparatory and Health Professions Pre-graduate Scholarships and IHS Health Professions Scholarship. Section 104(b)(1) of the IHCIA, as amended by the Indian Health Care Amendment of 1988, Public Law 100–713, authorizes the IHS to determine specific health professions for which Indian Health Professions Scholarships will be awarded.

Awards for the Indian Health Professions Scholarships will be made in accordance with 42 CFR 136.330. Awardees shall incur a service obligation prescribed under section 338A of the Public Health Service Act (42 U.S.C. 2541) which shall be met by service, through clinical practice:

(1) In the IHS;
(2) In a program conducted under a contract or compact entered into under the Indian Self-Determination Act and Education Assistance Act (Pub. L. 93–638) and its amendments;
(3) In a program assisted under Title V of the Indian Health Care Improvement Act (Pub. L. 94–437) and its amendments; or
The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of Healthy People 2020, a PHS-led activity for setting priority areas. This program announcement is

The following reports must be sent to the IHS Scholarship Program at the identified time frame. Each scholarship awardee will be provided with an IHS Scholarship Program Student Handbook where the needed reports are located. If a scholarship awardee fails to submit these reports as required, they will be ineligible for continuation of scholarship support and scholarship award payments will be discontinued.

A. Recipient’s Enrollment and Initial Progress Report

Within thirty (30) days from the beginning of each semester/trimester/quarter, scholarship awardees must submit a Recipient’s Enrollment and Initial Progress Report (Form IHS–856–8, page 69 of the Student Handbook).

B. Transcripts

Within thirty (30) days from the end of each academic period, i.e., semester/trimester/quarter, or summer session, scholarship awardees must submit an Official Transcript showing the results of the classes taken during that period.

C. Notification of Academic Problem/Change

If at any time during the semester/trimester/quarter, scholarship awardees are advised to reduce the number of credit hours for which they are enrolled below the minimum of the 12 or the number of hours considered by their school as full-time) for a full-time student or at least six hours for part-time students; or if they experience academic problems, they must submit this report (Form IHS–856–9, page 71 of the Student Handbook).

D. Change of Status

- Change of Academic Status

Scholarship awardees must immediately notify the IHS Area Scholarship Coordinator and their Scholarship Program Analyst if they are placed on academic probation, dismissed from school, or voluntarily withdraw for any reason (personal or medical).

- Change of Health Discipline

Scholarship awardees may not change from the approved IHS Scholarship Program health discipline during the school year. If an unapproved change is made, scholarship payments will be discontinued.

- Change in Graduation Date

Any time that a change occurs in a scholarship awardee’s expected graduation date, they must notify their IHS Area Scholarship Coordinator and their Scholarship Program Analyst immediately in writing. Justification must be attached from the school advisor.

VII. Agency Contacts

Please address application inquiries to the appropriate IHS Area Scholarship Coordinator. Other programmatic inquiries may be addressed to Dr. Dawn A. Kelly, Chief, Scholarship Program, 801 Thompson Avenue, Suite 120, Rockville, Maryland 20852; Telephone (301) 443–5204. (This is not a toll-free number). For grants information, contact the Grants Scholarship Coordinator, Division of Grants Management, Indian Health Service, 801 Thompson Avenue, TMP 360, Rockville, Maryland 20852; Telephone (301) 443–5204. (This is not a toll-free number).

VIII. Other Information
related to the priority area of Education and Community-Based Programs. Potential applicants may download a copy of Healthy People 2020, at http://www.healthypeople.gov.

Interested individuals are reminded that the list of eligible health and allied professions is effective for applicants for the 2012–2013 academic year. These priorities will remain in effect until superseded. Applicants who apply for health career categories not listed as priorities during the current scholarship cycle will not be considered for a scholarship award.

Randy Grinnell,
Deputy Director, Indian Health Service.

[FR Doc. 2012–8517 Filed 4–9–12; 8:45 am]
BILLING CODE 4165–16–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. 202 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.

Nonpathogenic Bacteria, Paenibacillus alvei, Useful as a Natural Biocontrol Agent for Elimination of Food-borne Pathogenic Bacteria

Description of Technology: This newly isolated non-pathogenic bacterial strain (TS–15) has shown the ability kill or inhibit a wide variety of harmful bacteria including many of the most common food-borne pathogens such as Salmonella, Escherichia, Listeria, Shigella, Enterobacter and Staphylococcus. The TS–15 strain may provide a natural low cost means to help protect the food supply. The strain may be used as a biocontrol agent in the form of a pesticide or pretreatment to soils in which fruits and vegetable are grown. Preventative use of the TS–15 strain in biocontrol measures may prevent many of the millions of illnesses in the U.S. that are caused by food-borne pathogens each year. Such prevention may also reduce the associated costs of treatment for such illnesses. Furthermore, isolation and development of the antibiotic compounds produced by the TS–15 strain may yield useful new compositions to help treat bacterial illness, including infections by some pathogens resistant to standard antibiotics.

Potential Commercial Applications

• Agriculture—pesticide.
• Medicine—antibiotic.

Competitive Advantages: Low cost natural means of prevention of many food-borne bacterial illnesses.

Development Stage: Early-stage. Inventors: Eric Brown (FDA), Jie Zheng (FDA), and Alex Enurah.


Licensing Contact: Tedd Fenn; 301–435–5031; Tedd.Fenn@nih.gov.

Collaborative Research Opportunity: The FDA Center for Food Safety and Applied Nutrition is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize Paenibacillus alvei (TS–15). For collaboration opportunities, please contact Alice Welch at alice.welch@fda.hhs.gov.

Glass Capillary Arrays for Calibration, Validation, and Quality Assurance of Quantitative Measurements from Diffusion MRI Applications

Description of Technology: NIH scientists have developed a tool for calibration and quality assurance for diffusion MRI applications. These Glass Capillary Arrays (GCAs) allow reliable means for instrument calibration and data measurement validation of various MRI scanning parameters. A variety of GCA conformations is available, so they have broad utility in MRI applications ranging from material sciences to clinical and biological MRI.

Potential Commercial Applications

• Calibration, quality assurance, and quality control for diffusion MRI applications using physics and mathematics algorithms combined with known GCA properties.
• GCAs come in various diameters and thicknesses, so can be utilized in a wide range of sciences (material and biological).
• Provides known standards for adjustment of various parameters, including magnetic field gradient, magnetic field homogeneity, and radiofrequency pulse.

Competitive Advantages

• Allows sufficient quality assurance and instrument calibration not previously available for advanced diffusion MRI.
• GCAs are non-toxic and biologically and environmentally safe, so can be stored without special permits or requirements.


Licensing Contact: John Stansberry, Ph.D.; 301–435–5236; stansbej@mail.nih.gov.

Diffusion MRI of Beating Hearts and Other Moving Tissues in Live Patients

Description of Technology: Diffusion Tensor Imaging (DTI) is an improved form of Magnetic Resonance Imaging (MRI) that provides microscopic details about tissue structure based on water diffusion. DTI is commonly used to visualize the brain when examining patients with neurological disorders or strokes. Currently, DTI faces technical limitations preventing imaging of moving tissues, such as the beating heart, spinal cord, and base of the brain. The NIH inventors have established an improved method allowing application of DTI to moving tissues. Using DTI to examine patients’ hearts will allow for better detection of location and severity of ischemia and for probing general muscle structure and integrity. This method can be applied to various diffusion models including Diffusion Weighted Imaging (DWI).

Potential Commercial Applications

• Heart disease diagnosis.
• Evaluating new drugs for effects on heart.
• Planning surgical procedures.
• Imaging spinal cord, base of brain, and periventricular zones.
• Enhanced imaging of other tissues.