

Graduate Affairs Committee  
January 28, 2003  
3:30 p.m. - 5:00 p.m.  
UL 1126

**AGENDA**

1. Approval of the minutes for November 26, 2002 ..... Queener
2. Vice Chancellor's Report..... Brenner
3. Discussion ..... Queener / Sara Allaei  
SEVIS
4. Associate Dean's Report..... Queener
5. Purdue Dean's Report ..... Story
6. Graduate Office Report..... Queener
7. GSO Report..... Roberts
8. Committee Business  
Curriculum Subcommittee Report ..... O'Palka  
Fellowship Subcommittee Report..... Koerner
9. Program Review..... Queener  
M.S. Pathology – Pathologist Assistant degree track
10. New Business.....
11. Next Meeting (February 25<sup>th</sup>) and adjournment .....

**Graduate Affairs Committee**  
**January 28<sup>th</sup>, 2003**  
**Minutes**

Present: Margaret Adamek, Hasan Akay, David Allman (filling in for Mark Goebel), William Bosron, Mark Brenner (co-chair), Daniel Callison, Jon Eller, Jeff Grove, Ain Haas, Dolores Hoyt, Martel Keister Plummer, Marvin Kemple, Jane Lambert, Khaula Murtadha-Watts, Jackie O'Palka, Sherry Queener (co-chair), Tonya Roberts, William Schneider, Sharon Sims, Jon Story, Joanne Warner, Kathryn Wilson

Staff: Monica Henry and David Koerner

**Approval of the minutes - Dr. Queener**

The minutes from the November 26<sup>th</sup> 2002 meeting were approved.

**Vice Chancellor's Report – Dr. Brenner**

Dr. Brenner deferred to Sara Allaei

**Discussion – Dr. Queener / Sara Allaei**

**SEVIS**

The following items were distributed: SEVIS Overview/Summary; Office of International Affairs Newsletter (for international students); Guidelines for Full-time Enrollment; INS Special Registration Procedures; Department of State Technology Alert List. See attached Power Point Presentation. Please share this information with those in your department that need to be aware of the changes. Additional key points follow:

- Student visas require full-time enrollment. **It is very important that students and their advisors obtain authorization from International Affairs prior to reducing their class schedule to less than full-time, for any reason. If they do not do so, this could result in termination of status by SEVIS, thus deportation.** In order to apply for reinstatement once the student's legal status has been terminated the student would have to show that the violation was a result of unforeseen circumstances and was out of their control.
- The country of nationality may affect the ease in which a student can re-gain status.
- Changes in **physical** address and legal name must be reported within ten days to the student's INSITE account. Failing to meet this requirement will not trigger the same kind of termination as an enrollment withdraw (if students do not report changes we will not know they happened) but it could be a reason for INS to start removal proceedings if they are made aware.
- There will be little change for full-time students who have no violations
- When the INS terminates a student's status, it does not mean we have to terminate their academic status, but they would be in a complicated legal status with INS as a result.
- If F1 or J1 individuals do not report to International Affairs within 30 days of arrival their status will be terminated. Previously the students arrive 90 days in advance of their start date. For fall enrollees the 30 days will run off the start date of orientation program, which is normally August 10<sup>th</sup>. This will be a problem if a student's original intent is to be admitted during the summer and attend summer classes and once they arrive they

decide to start in the fall. There are some allowances to extend this time for research rotations for the basic medical sciences, and other such programs. This will require close communication with International Affairs and the department.

- There are system glitches due to the expedited implementation of SEVIS.
- Summer sessions are not monitored unless the student is admitted for the summer session.
- Once a student has completed their course work, and they are in thesis credit there is no restriction to the number of thesis credits they must take.
- INS rules do not recognize registration as a candidate without any course enrollment as full-time. A student who has completed all thesis credits could apply through the INS for post-completion practical training work authorization instead of taking thesis credit that will not count towards the degree. The details of this option are still being ironed out.
- If a student cannot complete their final semester (which was less than full time status) they will need to enroll for an additional semester at full time, or demonstrate to the INS that something happened outside of their control, and apply to the INS for permission to take that last semester in less than full-time status. Students can only be in part-time status due to academic difficulty for one semester during each degree level of study.
- Medical conditions can be a justification for reduced enrollment. For example, if a student is pregnant, she will need to present a doctor's recommendation to International Affairs prior to dropping classes or enrolling less than full-time.
- To-date International Affairs has set the full-time enrollment deadline to be the 25% refund deadline. This may change in future semesters.
- Students are responsible for keeping their records up to date, and for obtaining advance authorization to take less than a full load of classes. Advisors are asked to always refer international students to International Affairs for advance permission to enroll less than full-time/permission to drop.
- It is VERY important that the department advisors are informed of the new regulations and that they support them.
- To date there are no regulations preventing students from particular nationalities from studying fields of research on the State Department of Technology Alert List, but certain fields could trigger a security clearance. To avoid this potential problem, departments should provide the student or research scholar a clear description of what the research program will be, in an effort to demonstrate that it is not really a field on the list. (Or, if it really is on the list, a thorough description may help facilitate the security clearance.)
- F-2 persons (dependents of F-1 student visa holders) are now restricted from full-time study. When F2 individuals seek admission, International Affairs will provide information to them on their study restrictions. They will be advised that if they want to pursue full-time study they will need to obtain an F1 status.

### **Associate Dean's Report - Dr. Queener**

Explore IUPUI will take place on September 13<sup>th</sup>, 2002. Campus Day will take place on March 2<sup>nd</sup>. In years past there have been student's interested in Graduate School who attend Campus Day. Dr. Queener asked schools to consider a graduate program presence or provide the Graduate Office with graduate program materials for distribution.

The Minority Visitation Day will take place on February 6<sup>th</sup>, and 7<sup>th</sup>. The reception will take place on the 6<sup>th</sup>, from 5:00 p.m. – 7:30 p.m. There are fifteen students visiting.

### **Purdue Dean's Report – Dr. Story**

Purdue West Lafayette is a test site for enrolling ongoing students. This has been running smoothly. The only problem seems to revolve around the deadlines.

### **GSO Report**

The first meeting will take place on February 3<sup>rd</sup>. Dr. Queener stated that the Hoosiers for Higher Education State Legislature Visit is taking place on February 10<sup>th</sup>. Last year there were a small percentage of IUPUI students who attended, this year students should try to attend.

### **Committee Business**

#### **Curriculum Subcommittee Report – Dr. O’Palka**

The Curriculum Subcommittee met on January 22<sup>nd</sup>. Two course changes and four new courses were approved. Courses were sent back to Pathology and Liberal Arts for minor adjustments.

Dr. Queener noted that the remonstrance list, which includes new programs, new courses, and course changes, will no longer be distributed in hard copy form. You can find the remonstrance lists on the Indiana University Graduate School website (<http://www.indiana.edu/~grdschl/>). Remonstrance can be sent to Julie Allen via e-mail ([jkallen@indiana.edu](mailto:jkallen@indiana.edu)).

#### **Fellowship Subcommittee Report - Koerner**

Fellowship applications have been sent to deans, department chairs, and primary contacts. The deadline for submitting applications is February 21<sup>st</sup>.

Block Grant proposals have been approved. Approximately 3 to 4 programs received what they requested. The remainder received slightly less than requested, temporarily. There has been some difficulty in obtaining an exact balance in this account. If there is additional money, it will be used to round up the awards for those programs that did not receive what they requested. Notification will be sent to departments shortly.

### **Program Review**

#### **M.S. Pathology – Pathologist Assistant degree track**

This track will be within an existing Master's degree program. It is a non-research track intended to generate pathologists assistants. There are only 6 other programs like this in the country. The driving force behind this proposal is the new requirement by the accreditation agency that says there must be an academic program. Individuals can no longer be trained by a

pathologist. Reviewer 1 voted to approve the proposal without revisions, Reviewer 2 voted to accept but suggested adding a needs survey, and Reviewer 3 voted to defer pending separating the track proposal from the NAACLS accreditation requirement. The question was brought up as to if the program could receive accreditation before the first class graduated. Also there was a concern regarding the first year/second semester course load. Dr. Queener noted that this was not an unusual load in the basic medical sciences programs. Dr. Queener stated that she will suggest that there be more information as to the size of classes. The GAC voted to approve the proposal.

#### **Ph.D. in Nursing Science Program**

The School of Nursing is increasing accessibility to their existing Ph.D. in Nursing Science Program through a variety of distance technologies. A summary of this initiative was distributed to the GAC. This is being done in order to combat the annual decline in enrollees, and meet the nationwide need for more faculty and nurse scholars. Students will be required to attend an intensive on-campus session each of the four summer sessions. The admission and degree requirements will remain the same. This proposal will be sent to the Bloomington Graduate Council as an information item.

#### **New Business**

The search committee for the Dean of Graduate Studies has been assembled and a search firm has been hired. The next meeting of the search committee will take place on February 7<sup>th</sup>.

#### **Next meeting date**

February 25<sup>th</sup>, 2003

**Meeting adjourned at 4:55 p.m.**

## Guidelines for full-time enrollment for international students

Level of Study	Required Credit Hours
Undergraduate students	12
Graduate students, including University fellowship recipients	8
Graduate students with assistantship/student academic appointment (must be .375 to .50 FTE appointment)	6
Professional students (JD, MD, DDS, etc.)	As defined by program

Enrollment options for meeting full-time standard	Allowed by INS rules?
Distance education courses not requiring physical attendance for classes, exams, or other purposes integral to completion of the course (e.g. TV, audio, on-line courses)	Only one course (3 credit hours) per semester
Correspondence courses	No
Courses taken as audit or not-for-credit	No
Courses taken as Pass/Fail	Yes
IUPUI ESL courses	Yes
Concurrent enrollment at another campus or school (e.g. Ivy Tech)	Yes—requires OIA notification
< 8 hrs thesis credit enrollment for students who have completed all required graduate coursework (e.g. G901)	Yes—student must carry active course registration even if all thesis hours have been earned and registration is not technically required by the graduate program. Number of thesis credits is not regulated and prior approval by OIA is not required.
Registration as candidate for graduation without concurrent course enrollment	No
Summer enrollment	Not monitored except to confirm enrollment of students admitted to a summer session

Reductions in enrollment requiring advance OIA approval	Documentation Required	INS Limitation
Academic difficulties	Certification from advisor to confirm initial difficulty with language requirements, unfamiliarity with US teaching methods, improper course level placement, imminent course failure, or similar academic justification	<b>Only one</b> less-than-full-time reduction based on this category per degree level of study; undergraduates must maintain 6 credit hours, graduate students must maintain 4 credit hours
Medical reasons	Statement from a licensed medical doctor, doctor of osteopathy, or licensed clinical psychologist.	12 months aggregate; no minimum credit hour enrollment requirement
Final semester of study	Certification from academic advisor that remaining credit hours will satisfy all degree requirements	<b>Only one</b> less-than-full-time reduction based on this category per degree level of study
Complete course withdrawal due to compelling personal or academic reasons	Request from student	Must depart the US within 15 days, may return 30 days in advance of next semester

### Related Information

- ❖ Under SEVIS, students on F-1 or J-1 student visas who fail to obtain advance approval from the international office for any reduction or withdrawal below full-time will have their student visa status terminated by the INS. Options for regaining legal status are more restrictive than in the past.
- ❖ Advisors can verify whether a student is subject to these rules from the **IUIS rq89** screen. If “**Visa Stat**” shows as **F** or **J**, the student most likely is subject.
- ❖ OIA is pro-actively monitoring less-than-full-time enrollment situations in order to advise students with apparent compliance issues of enrollment requirements wherever possible. *However, it is ultimately the individual student’s responsibility to ensure compliance with all INS enrollment requirements.*
- ❖ We will be offering the following series of information sessions for international students to provide a comprehensive review of the new rules. Although students are the primary audience, any interested faculty or staff member is welcome to attend:

Friday, January 31	11:00 a.m.	NU 221
Tuesday, February 4	6:00 p.m.	Riverpointe Lounge (South Building)
Wednesday, February 5	12:00 p.m.	UL 0130
Friday, February 7	3:00 p.m.	CA 235

## **Notice of New INS “Special Registration Procedures”**

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On January 16, 2003, the U.S. Immigration and Naturalization Service (INS) announced new *special registration procedures* for certain nationals of the following countries. This group of countries is the fourth group identified for call-in registration.

**Bangladesh**  
**Egypt**  
**Indonesia**  
**Jordan**  
**Kuwait**

The requirement applies to persons who meet the following criteria:

- **Males** born on or before February 24, 1987 (age 16 years or older)
- Last entered the U.S. on or before 9/30/02.
- Intend to remain in the US at least until 3/28/03
- Hold a non-immigrant status other than a diplomatic visa
- Have not applied for asylum on or before 1/16/03 **and**
- Are not Asylees, Refugees, or Lawful Permanent Residents (green card holders)

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### **Summary of Special Registration Requirements for Affected Persons**

As a result of the USA PATRIOT Act that became law in the wake of September 11, 2001, non-immigrants from certain countries are required to register their presence with the INS through the National Security Entry-Exit Registration System (NSEERS). Additionally, they must update their registration on an annual basis and notify INS of any change of address, employment or educational institution within 10 days of that change. Prior to departing from the U.S., these individuals also must notify INS of their intended departure **and** may only depart the U.S. from certain authorized airports.

#### **What are the exact requirements?**

Citizens or nationals of these countries to whom these procedures apply must:

1. Register with the local INS office between February 24, 2003 – March 28, 2003.
2. Be interviewed again by INS one year after their registration.
3. Continue to report to the INS for an interview on an annual basis.
4. Inform INS within 10 days of any change of address, change of employer or change of school.
5. Notify INS of their departure by departing the U.S. from a designated port of departure.

#### **I have a 16-year-old son. Does he have to register in person?**

Yes. All persons meeting the listed criteria, including dependents, must be fingerprinted and photographed by the INS.

#### **I hold dual citizenship in one of these countries and another country other than the US. Do I have to register?**

Yes. The INS notice indicates that persons holding dual nationality are still required to register. This includes citizens of Canada.

### Where do I register?

You can visit any INS office that has been authorized to conduct special registration. In Indianapolis, you can go to the following office:

- 950 N. Meridian Street, Suite 400 (corner of 10<sup>th</sup> & Meridian/Illinois Streets)
- Monday – Thursday, 8:00 – 2:00; Friday, 8:00 - Noon

### Do I have to schedule an appointment?

Appointments are not available. Just show up at the INS office during the morning hours. Some visitors to the Indianapolis INS report that arriving at approximately 7:30 a.m. and waiting in line until the office opens is an effective strategy to reduce the waiting time. Special registrants should report directly to the Information Officer at the window and are not required to take a number. Inform the Officer that you are reporting for “Special Registration.”

### What if I don’t have time to go to the INS before March 28?

You can apply to INS for a waiver of all or part of the registration requirements if you become so ill that hospitalization is required. Otherwise, you are expected to appear by the date required.

### What should I expect to happen when I go?

You will be fingerprinted and photographed and asked a number of questions under oath to determine that you are pursuing activities that are required by and appropriate for your visa status. Also, you will be given detailed information about future registration requirements.

### When I go to the interview, what do I need to take with me?

You should take your passport, I-94, and documentation appropriate for your status: I-20, IAP-66/DS-2019, or I-797. In addition, bring proof of residence (for example, your apartment lease) and appropriate documents to show the INS officer that you are doing what you are supposed to be doing. Following are some suggested documents:

	<b>Visitor for Business</b>	<b>F-1 or J-1 Student</b>	<b>J-1 scholar, H1B, O-1, TN, etc. visa holders</b>
<b>Documents to Bring</b>	<ul style="list-style-type: none"><li>➤ Hotel receipts or other documents showing where you have stayed.</li><li>➤ If staying with friends or relatives, documents showing their name, such as a postmarked envelope or bill</li></ul>	<ul style="list-style-type: none"><li>➤ Class schedule</li><li>➤ Official grade reports or transcript</li><li>➤ Student ID card</li><li>➤ Letter from the Office of International Affairs verifying that you are an IUPUI student in good standing</li></ul>	<ul style="list-style-type: none"><li>➤ Payroll record</li><li>➤ Employment contract or invitation letter</li><li>➤ Letter from Office of International Affairs verifying your status at IUPUI.</li></ul>

### How can I get a letter from the Office of International Affairs?

Please call the office at 274-7000 or e-mail us at [scromer@iupui.edu](mailto:scromer@iupui.edu). Give us your name, indicate that you are requesting a letter for the INS Special Registration, and tell us the date you plan to visit the INS. Please allow us several days to prepare your letter.

### What if INS asks a question that doesn’t seem to have anything to do with anything?

This is a possibility. Under current immigration law, you are required to answer any question asked of you by INS, even if there appears to be no relevance to the question. Truthfully answer the question as best you can. Try to remain calm and appear to be cooperative. Do not, under any circumstance, provide information that you know to be inaccurate.

**What should I expect for the annual follow-up interviews?**

If your stay in the US extends to a year or more, you will be required to report to INS on an annual basis, and you will be given a ten-day window during which to report each year. The follow-up interviews should follow the same pattern as your initial interview. Be sure to keep and take with you any documentation evidencing an address change, job, or school change, etc.

**How do I notify INS of changes in address following registration?**

You must notify INS of address changes or changes of employer or school within 10 days of the change by submitting Form **AR-11 SR**. Form AR-11 SR is available from the IUPUI Office of International Affairs or at <http://www.ins.usdoj.gov/graphics/formsfee/forms/ar-11sr.htm>. In addition, if you hold F-1 or J-1 status, you must keep your address current with the University to meet parallel address reporting requirements.

**How should I send the AR-11 SR?**

Send it to the address on the form in a manner that allows you to track it and/or obtain evidence that it was delivered – either by certified, return receipt mail through the US postal service, or via any other mailing service that gives you confirmation of delivery. Keep this confirmation for your records.

Keep a copy of the form for your records.

**What do I need to do if I travel outside the US?**

You must notify INS and leave only through a designated port.

**Can I leave the US from Indianapolis?**

No. The Indianapolis International Airport is not designated as a port of departure (POD) for special registrants. Chicago O'Hare and Detroit Metro Airports are the closest PODs to Indianapolis.

**How do I get a list of designated ports of departure?**

When you report to the INS for special registration, you will be given a list of these ports. A complete list is also available <http://www.ins.usdoj.gov/graphics/lawenfor/specialreg/BLISTOFFP.pdf>.

**What if I drive to Canada or Mexico on holiday?**

Most nationals of the countries listed in this notice should be able to travel to neighboring countries without difficulty. However, even with a valid visa, you could experience delays. INS has not indicated whether you would be subjected to the Special Registration procedure once again upon re-entry. Please consult with an advisor in the Office of International Affairs if you are considering travel outside the US. If you do travel, remember that once you have completed the Special Registration procedure, you can only use designated ports of departure, even for land border crossings. Consult the list of ports and plan your trip accordingly.

**What if I forget to notify the INS the next time I leave the U.S. after completing the Special Registration procedure?**

The INS notice states that special registrants who fail to report to an INS officer at a designated departure port are presumed *inadmissible* to the U.S. This means that you could be refused entry to the U.S. the next time you return if you do not have evidence of compelling reasons for not following INS departure procedures for special registrants.

**What if I am planning to travel outside the US during Spring Break?**

You will be leaving the US before the registration deadline of 3/28/03; therefore, you may leave without going through the Special Registration procedures, and you can avoid the special departure procedures for this trip. Be aware, however, that you may be required to undergo Special Registration at the port of entry when you return, and then report to the INS again 30 to 40 days after arrival. We suggest that you allow at

least 4 hours for your connecting flight to Indianapolis. Don't forget to get your documents signed before you travel, and consult our travel information available at <http://www.iupui.edu/cgi-bin/cgiwrap/oia/wrap?visainfo/travel.htm>.

**What if I don't comply with this program?**

If you fail to comply with these registration requirements, the INS will consider you to be in violation of your visa status. You may be subject to arrest, detention, fines and/or removal (deportation) from the U.S. This could impact any future plans you may have to apply for any immigration-related benefits, or even your ability to return to the U.S. in your current status. Decisions regarding the impact of any non-compliance will be made by the INS on an individual, case-by-case basis.

**I heard that INS extended the registration deadline for other countries. Can't I just wait to see if INS extends its deadline for me?**

In its notice extending the registration deadline for call-in Groups I and II, the INS published the following statement: "Given the publication of multiple notices relating to other countries ... and the attendant publicity about NSEERS, aliens who are covered by [this notice] are not being, and should not expect to be, afforded an additional opportunity to comply with the requirements of the relevant notice." –*Federal Register*, 1/16/03.

**What if I am on a student visa and I haven't always been enrolled full-time?**

If you do not have an INS-approved reason for not maintaining full-time enrollment, we will not be able to provide you with a letter of good standing, and complying with the Special Registration procedures may place you at risk of being placed in removal proceedings. If this is your situation, please schedule an appointment with an advisor to review your options. For example, it may be preferable for you to travel outside the U.S. and re-enter instead of reporting now for the Special Registration procedures.

**What if I still have questions?**

The INS web site provides comprehensive information at <http://www.ins.usdoj.gov/graphics/lawenfor/specialreg/index.htm#special4>. Be aware that the INS has designated different groups of countries for Special Registration at different times. The details for each group of designees have slightly different requirements. Look for "Call-In Group 4" dated 1/16/03. (At the time this advisory was prepared, the current information was not yet posted to the INS web site.)

Please consult with an advisor at the Office of International Affairs if you are unsure of how Special Registration applies to you and you have further questions.

The following information is from the Department of State web site:  
[http://travel.state.gov/reciprocity/Mantis\\_TAL.htm](http://travel.state.gov/reciprocity/Mantis_TAL.htm)

## VISAS MANTIS

What is the Visas Mantis? The Visas Mantis is a pre-check name-check procedure designed for all USG-sponsored programs. It was developed as a result of United States law enforcement and intelligence community concerns that U.S. produced goods and information are vulnerable to theft.

Visas Mantis cables must be submitted for all cases (business, education, training, scientific exchange) that fall under the purview of section 212(a)(3)(i)(II) of the Immigration and Nationality Act (INA) and involving fields on the [Technology Alert List \(TAL\)](#).

The primary program security objectives are to:

- ☛ stem the proliferation of weapons of mass destruction and missile delivery systems;
- ☛ restrain the development of destabilizing conventional military capabilities in certain regions of the world;
- ☛ prevent the transfer of arms and sensitive dual-use items to terrorist states
- ☛ maintain U.S. advantages in certain militarily critical technologies.

The [Visas Eagle Mantis](#) is a no-response pre-check procedure that permits a post to process a case to conclusion after a ten-working day suspense period, without the Department's reply. The procedure may be used for all USG-sponsored visa applicants, including, but not limited to, U.S. Government agencies/entities.

The [Visas Donkey Mantis](#) is a pre-check procedure that requires the Department's authorization prior to processing a case to conclusion. It is used for any visa applicant who does not qualify for the Visas Eagle Mantis procedure. Cases that cannot wait until the conclusion of the ten working-day suspense period should be submitted as Visas Donkey Mantis, noting it is an expedited request in the subject line. The cable must include the reason expedited handling has been requested (i.e., unforeseen imminent

travel, medical emergency, etc.).

A Visas Mantis clearance (Eagle or Donkey) will remain in effect for the duration of the USG-sponsored applicant's program, provided that the applicant will perform the same duties/functions and will conduct the same work assignment or participate in the same program at the same facility/organization. A change in any of the above would demand a new Mantis review. During the course of the visa interview, the consular officer must inquire whether anything has changed in the applicant's program. Should a Mantis-cleared applicant depart the U.S. for a period of not more than 30 days, it is not necessary for the post to submit a new Mantis cable or a new Mantis review upon the applicant's return if they are continuing the same work. However, posts are requested to send a Visas Eagle Mantis cable on a post-check basis in such a case. The prior visa may serve as proof that the applicant previously completed the Mantis clearance process. Posts may also assist with the tracking of Mantis clearance by annotating the visa with the Visas Eagle Mantis cable number (for example, "Eagle Mantis 99 Post 999999") or, in the case of Visas Donkey Mantis, the State authorization cable number (for example, "Donkey Mantis 99 State 99999").

State Sponsors of Terrorism A Visas Donkey Mantis cable is mandatory for all applicants bearing passports of, or employed by states designated as State Sponsors of Terrorism, who seek to engage in a commercial exchange or academic pursuit involved in one of the critical fields of the Technology Alert List.

Presently, there are seven countries on the Department's List of State Sponsors of Terrorism:

1. Cuba
2. Libya
3. Iran
4. Iraq
5. North Korea
6. Sudan
7. Syria

Non-Proliferation Export Control Posts must be alert to cases involving foreign nationals affiliated with the entities in a region

subject to the Nonproliferation Export Control regulations.

The countries are:

1. China
2. India
3. Israel
4. Pakistan
5. Russia

The visa interview may reveal that employees from a nuclear research center from certain countries may require a Visas Eagle Mantis cable (if USG-sponsored), or Visas Donkey Mantis cable (if not USG-sponsored).

Technology Alert List As of this writing there are sixteen (16) categories on the Technology Alert List (TAL):

- CONVENTIONAL MUNITIONS
- TECHNOLOGIES ASSOCIATED WITH WARHEAD AND LARGE CALIBER PROJECTILES, FUSING AND ARMING SYSTEMS.
- NUCLEAR TECHNOLOGY: TECHNOLOGIES ASSOCIATED WITH THE PRODUCTION AND USE OF NUCLEAR MATERIAL FOR MILITARY APPLICATIONS.
- MISSILE/MISSILE TECHNOLOGY: TECHNOLOGIES ASSOCIATED WITH AIR VEHICLES AND UNMANNED MISSILE SYSTEMS.
- AIRCRAFT AND MISSILE PROPULSION AND VEHICULAR SYSTEMS: TECHNOLOGIES ASSOCIATED WITH LIQUID AND SOLID ROCKET PROPULSION SYSTEMS, MISSILE PROPULSION, ROCKET STAGING/SEPARATION MECHANISMS, AEROSPACE THERMAL AND HIGH-PERFORMANCE STRUCTURES.
- NAVIGATION AND GUIDANCE CONTROL: TECHNOLOGIES ASSOCIATED WITH THE DELIVERY AND ACCURACY OF UNGUIDED AND GUIDED WEAPONS, SUCH AS TRACKING AND HOMING DEVICES, INTERNAL NAVIGATION SYSTEMS, VEHICLE AND FLIGHT CONTROL SYSTEMS.
- CHEMICAL AND BIOTECHNOLOGY ENGINEERING: TECHNOLOGIES ASSOCIATED WITH THE DEVELOPMENT OR PRODUCTION OF BIOLOGICAL AND TOXIN AGENTS, PATHOGENICS, BIOLOGICAL WEAPONS RESEARCH.
- REMOTE IMAGING AND RECONNAISSANCE: TECHNOLOGIES ASSOCIATED WITH MILITARY RECONNAISSANCE EFFORTS, SUCH AS DRONES, REMOTELY PILOTED OR UNMANNED VEHICLES, IMAGERY SYSTEMS, HIGH RESOLUTION CAMERAS.

- ☛ ADVANCED COMPUTER/MICROELECTRONIC TECHNOLOGY: TECHNOLOGIES ASSOCIATED WITH SUPERCONDUCTIVITY SUPERCOMPUTING, MICROCOMPUTER COMPENSATED CRYSTAL OSCILLATORS.
- ☛ MATERIALS TECHNOLOGY: TECHNOLOGIES RELATED TO THE PRODUCTION OF COMPOSITE MATERIALS FOR STRUCTURAL FUNCTIONS IN AIRCRAFT, SPACECRAFT, UNDERSEA VEHICLES AND MISSILES.
- ☛ INFORMATION SECURITY: TECHNOLOGIES ASSOCIATED WITH CRYPTOGRAPHIC SYSTEMS TO ENSURE SECRECY OF COMMUNICATIONS.
- ☛ LASERS AND DIRECTED ENERGY SYSTEMS: TECHNOLOGIES ASSOCIATED WITH LASER GUIDED BOMBS, RANGING DEVICES, COUNTERING MISSILES.
- ☛ SENSORS: TECHNOLOGY ASSOCIATED WITH MARINE ACOUSTICS, MISSILE LAUNCH CALIBRATION, NIGHT VISION DEVICES, HIGH SPEED PHOTOGRAPHIC EQUIPMENT.
- ☛ MARINE TECHNOLOGY: TECHNOLOGY ASSOCIATED WITH SUBMARINES AND DEEP SUBMERSIBLE VESSELS, MARINE PROPULSION SYSTEMS DESIGNED FOR UNDERSEA USE AND NAVIGATION, RADAR, ACOUSTIC/NON-ACOUSTIC DETECTION.
- ☛ ROBOTICS: TECHNOLOGIES ASSOCIATED WITH ARTIFICIAL INTELLIGENCE, COMPUTER-CONTROLLED MACHINE TOOLS
- ☛ ADVANCED CERAMICS: TECHNOLOGIES RELATED TO THE PRODUCTION OF TANKS, MILITARY VEHICLES AND WEAPONS SYSTEMS.
- ☛ HIGH PERFORMANCE METALS AND ALLOYS: TECHNOLOGIES ASSOCIATED WITH MILITARY APPLICATIONS.

Posts are reminded that it is of the utmost importance that the information provided in the Visas Eagle Mantis or Visas Donkey Mantis cables be detailed.

Security advisory opinions (SAOs) or name-check cables that contain vague or incomplete information will result in processing delays. Cables that do not contain sponsor/project manager and contact information, or which do not state the specific purpose of visit, itinerary, etc. will delay the traveler. The Visa Office will, at the request of other USG agencies, instruct posts to suspend the processing of a visa case in order to obtain additional information. The Mantis review turnaround time will be directly affected by the completeness of the information in the Mantis

cable of SAO.

NOTE: The following sample of the Visas Eagle Mantis cable format reflects the minimum information required. A Visas Eagle Mantis cable should be as thorough as a Visas Donkey Mantis cable. The significant difference between the two procedures is the processing time - ten-day no response suspense period for the former and awaiting Department reply to proceed for the latter.

To facilitate cable distribution, visa issuing posts are requested to include the abbreviated nationality code (see 9 FAM Part IV, Appendix I, Exhibit VIII) in the subject line, such as illustrated in the sample cable format below.

**Sample Visa Mantis cable format**

(minimum required info):

**Subject:** Visas Eagle Mantis - Chin - USG-sponsored program/or/ Subject: Visas Donkey Mantis - RUS - USG-sponsored program

**Tags:** CVIS, PARM, CM (surname, first name)

- a) Full name (standard telegraphic code, if applicable);
- b) Date of birth;
- c) Place of birth;
- d) Gender;
- e) Passport number;
- f) Visa type;
- g) Purpose of visit;
- h) Full itinerary (each U.S. location together with point of contact, program manager's address and telephone number);
- i) Field of study, occupation or specialization;
- j) Employer's contact address and phone number;
- k) U.S. sponsor's contact address and telephone number (if different from employer or program manager);
- l) Applicant's U.S. address and telephone number;
- m) Remarks

Pre-Clearances Due to the high volume of cases and the limited resources available, it is not possible to pre-clear individual visa applicants or program participants as a matter of routine. However, USG-sponsoring agencies could facilitate the Mantis review for participants in a given program in the long term by providing to the law enforcement/intelligence community a program description that may satisfy concerns regarding the planned activities for visa applicants visiting the U.S. as participants in such programs.

Some USG-sponsoring agencies with representation at U.S. posts abroad may wish to initiate program pre-clearance requests for some programs. Program pre-clearance requests

initiated by U.S. posts abroad should be submitted only in the Visas Donkey Mantis format, as the interagency review for a USG-sponsored program will take more than fifteen (15) working days to complete.

The role of the Visa Office in the interagency program pre-clearance process will be to:

- a) send an acknowledgement (no later than fifteen working days) of having received post's request for a program pre-clearance, and,
- b) send the subsequent notification to post reporting the interagency decision on the program pre-clearance request.

**Sample program pre-clearance request cable format:**

**Subject:** Visas Donkey Mantis - program title and number

**Tags:** CVIS, PARM

- a. Name of USG sponsoring agency;
- b) Participating foreign entity;
- c) Total number of foreign national participants - 60;
- d) Description - this is a three-year program designed;
- e) Facility/organization address and telephone number;
- f) Program manager/sponsor contact address and telephone number;
- g) List the name, dpob, occupation and approximate length of stay for each foreign national participant.

Students, Exchange Visitors, Temporary Workers Any F-1, J-1 or H-1 visa applicant (regardless of nationality) who has departed the U.S. for a short term (not more than thirty (30) days) does not require a new Mantis cable (Donkey or ten-day Eagle). However, posts are instructed to send a Visas Eagle Mantis cable on a post-check basis for any applicant who falls in this category. The subject line should be annotated "returning scholar", "returning exchange visitor" or "returning temporary worker", whichever is applicable, and include in the remarks the nature of the conference the applicant attended or the nature of business the applicant conducted while outside the U.S.

## Proposal for New M.S. Track in Pathology: M.S. Pathologist Assistant

### **I. Campus:** IUPUI

**II. Proposed degree:** M.S. in Pathology: Pathologist Assistant. This is a new track to be added to the existing M.S. in Pathology program in the Department of Pathology and Laboratory Medicine (DPLM).

**III. Projected date of implementation:** Admission of the first class of PAs into the DPLM program is anticipated for fall, 2003. The first two semesters of coursework involve didactic basic science courses already in place in the IU Graduate School, with the exception of one new course in the spring semester (C690 Techniques for Specimen Processing, 2 cr.), planned for spring, 2004. Appropriate faculty are in place for teaching the courses in the program.

### **IV. List the major objectives of the proposed degree track and describe its chief features.**

**Major objective:** Education of scientists in the area of anatomic pathology. This education prepares individuals to serve as pathologist assistants (PAs). The PA is a health professional, qualified by academic and practical training, who assists in providing service in anatomic pathology under the direction and supervision of a qualified anatomic pathologist. The PA assists in the examination, dissection, and processing of tissue samples and participates in gross autopsy dissection. The degree of responsibility assumed by the PA requires skills and abilities in anatomic pathology as well as the ability to relate to people, a capacity for calm and reasoned judgement, and the ethical and moral attitudes and principles essential for quality patient care. PAs also assist with research in the area of anatomic pathology. PAs are employed in a variety of settings, which include community and regional hospitals, university medical centers, private pathology laboratories, and medical examiner/coroner offices.

This new M.S. track for PAs will be an addition to the existing M.S. program in Pathology. Currently, two tracks, Experimental Pathology and Pathology Laboratory Science, are in place at the M.S. level in the Pathology graduate program; both are research-based programs. The M.S. Experimental Pathology Track is intended for those who plan to progress to the Ph.D. after completion of the M.S. The M.S. Pathology Laboratory Science track is for those who wish to specialize in an area of the clinical laboratory at the M.S. level and do not plan to continue to the Ph.D. level. These existing tracks focus on clinical and experimental pathology. The new track, M.S. Pathologist Assistant, will be a third M.S. track that is based in the anatomic area within Pathology.

**Academic eligibility:** Applicant must meet all of the same requirements currently listed for all Pathology M.S. applicants. As stated in graduate program materials currently distributed by the DPLM and indicated on the DPLM web page: "The general requirements of the Graduate School for the M.S. and for the Ph.D. degrees must be satisfied. In addition, the following are requirements of the Department of Pathology and Laboratory Medicine: For the M.S. degree, a baccalaureate degree in chemistry, microbiology, biology, clinical laboratory science (medical technology), or cytotechnology. A degree in other concentration areas related to biology (e.g. physics, mathematics, etc.) will sometimes be acceptable if the appropriate biology courses were included. A completed application form, transcripts from all colleges attended, letters of

recommendation, and scores on the Graduate Record Examination General Test, and, ideally, one Subject Test must all be received before an application will be considered. A minimum grade point average of 3.0 (B) in undergraduate science courses and an interview with the graduate program committee are required.” NOTE: Admission criteria specified by the IU School of Medicine Graduate Division for GRE and TOEFL scores apply to all Pathology graduate admissions. Currently GRE scores  $\geq 55\%$  in all areas of the GRE General Test and TOEFL scores of 600 (625 preferred) are recommended.

**Prerequisites:** As stated in graduate program materials currently distributed by the DPLM and indicated on the DPLM web page: “Required prerequisite courses include chemistry, both general quantitative analysis and organic. The following undergraduate courses or their equivalent are recommended: biology or zoology; anatomy; physiology; cell biology or its equivalent; physics; and college level mathematics. Statistics, genetics, microbiology, and biochemistry are also desirable. Clinical laboratory work experience is preferred for those individuals planning to specialize in an area of clinical laboratory science.” NOTE: A sentence will be added for the new PA track: Work experience in any area of pathology (clinical laboratory, cytopathology, autopsy service) and/or a baccalaureate degree in Clinical Laboratory Science, Cytotechnology, or Histotechnology are preferred for those planning to enter the PA program.

**Curriculum requirements:** The curriculum is designed to meet the requirements from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) for accredited PA programs. NAACLS specifies that the following subjects must be included in the program: human anatomy, human physiology, general and systemic human pathology, histology/microscopic anatomy, medical microbiology, medical photography, clinical pathology, anatomic pathology management and information systems, computerization and educational methodologies, medical terminology, gross autopsy pathology techniques, gross surgical pathology techniques, embryology, gross forensic pathology/toxicology specimen techniques, gross pediatric pathology techniques, medical ethics, and safety regulations. The PA program is expected to last no less than 22 months. (For a complete listing of NAACLS Essentials for Accredited Educational Programs for the Pathologists’ Assistant, see <http://www.naacls.org/pathasst/paess.htm>)

The curriculum proposed for the IU PA degree tract includes all of the curriculum components required by NAACLS: 43 credits are required: 34 of these are course credits and 9 are from practicum experiences. Courses comprising the 34 course credits are (existing courses) Introductory Biochemistry B500 or 533, Basic Histology D502, Human Physiology F503, Gross Anatomy D501, Microbiology/ Immunology J510, and (new courses) Techniques for Specimen Processing C690, Gross Surgical and Pediatric Pathology Techniques C691, Autopsy and Forensic Pathology Techniques C692, General and Clinical Pathology C693, Systemic Pathology C694, and Practicum for Pathologist Assistants C695. Practicum experiences involve nine 1-month practicum experiences that include surgical, pediatric, autopsy, and forensic pathology. See Proposed Curriculum–Appendix A.

Part-time study may be considered but is not recommended during the first two semesters of the program which involve basic science didactic courses. In the first summer session that follows the first two semesters, the PA professional courses and practicums begin. From Summer 1 of the first year until completion of the summer session that follows year 2, full-time study is required. See Proposed Curriculum--Appendix A

**Thesis Option:** A thesis option is available. For the thesis option, a minimum of 48 credits is expected: 35 of these are course credits (includes 1 credit of C808 Graduate Student Seminar in addition to the 34 course credits required for non-thesis students), 7 credits from practicum experiences, and at least 6 credits in C859 Research in Pathology. Thesis option students may substitute 2 credits of C859 Research in Pathology for each of two elective units of practicum and will register for at least 2 additional credits of C859 to allow for research/thesis completion. Those completing the thesis option are eligible to apply to enter the Pathology Ph.D. program.

**Transfer Credits:** Courses at another institution: Courses at other institutions are not required. However, graduate-level basic science courses equivalent (per evaluation/decision of the DPLM) in content and academic level may be transferred up to the 8-credit limit defined by the IU Graduate School. Likewise, other equivalent or higher level courses taken at Indiana University may be substituted for the basic science courses. Transfer credits or course substitutions will not be accepted for any of the professional courses including C690 Techniques for Specimen Processing, C691 Gross Surgical and Pediatric Pathology Techniques, C692 Autopsy and Forensic Pathology Techniques, and C695 Practicum for Pathologists Assistants.

**Financial Support:** Students are eligible to apply for financial support through the IUPUI Financial Aid Office. No scholarships are available from the DPLM.

**Program Evaluation:** Ongoing evaluation of the program will be conducted by the DPLM Graduate Education Committee. This Committee routinely reviews each DPLM graduate student each year, and this review is expected to reflect the total quality of the new program. Courses which prove difficult for many students will be evaluated, faculty that receive or express concerns will be heard, and any programmatic issues will be resolved. Initial inspection of the program will be conducted by NAACLS in order to obtain program accreditation. NAACLS will re-inspect the program every 5 years.

**Trainee Evaluation:** Students will receive grades in all of the didactic and practicum courses in the PA program. As specified by the IU Graduate School, a minimum grade point average of 3.0 is required for completion of the program. Evaluation criteria are defined for each course individually. The DPLM Graduate Program Adviser will serve to counsel students on an ongoing basis, and each PA program student will be reviewed annually by the DPLM Graduate Education Committee.

- V. Why is the degree needed?** In an era of cost containment in health care, the use of PAs has been shown to be cost beneficial (Grzybicki et al., 1999). The PA performs duties that a pathologist otherwise would perform, thus freeing the pathologist to engage in other activities which only a pathologist can perform. In academic settings, the presence of PAs contributes to the research mission of pathology departments as well as improves the overall quality of educational programs; PAs assist pathologists in educating medical students, graduate students, and residents. Studies have indicated that a shortage of pathologists will occur in the immediate future (<http://www.pathology.mc.duke.edu/paprogram/history.htm>). The reasons for this include a decrease in the number of pathology residency programs and significant attrition rates among trainees during training in pathology. Conservative estimates suggest that the U.S. is presently producing only 45% of the pathologists that will be needed to service community

hospital and private laboratories. Pathology Departments at top-of-the-line institutions are presently seeing a precipitous decline in both the number and quality of applicants for resident training in pathology. Training of PAs may solve this problem. PAs not only extend the manpower of pathologists in the short run and have significant benefits in terms of costs but also have a tremendous impact on the quality of the practice of pathology. By shouldering much of the technical burden of performing routine autopsy and surgical pathology dissections, PAs ensure that housestaff and faculty have more time to spend reading, researching, and performing interpretive diagnostic services. The American Association of Pathologists' Assistants reports that 72% of all PAs who responded to their surveys are employed in hospitals of 500 or fewer beds, 35.3% work in practices with five or fewer pathologists, 74.9% work in practices with 10 or fewer pathologists, and 80% work in private groups or in community hospitals. This indicates that the majority of PAs are placed where the brunt of the manpower shortage in pathology is predicted to have the largest impact, and they are improving service and easing work loads.

At present, there are only six accredited PA programs in the United States: Quinnipiac College, Camden, CT; Ohio State University, Columbus, OH; Duke University, Durham, NC; Finch University, Chicago Medical School, Chicago, IL; Wayne State University, Detroit, MI; and the University of Maryland, Baltimore, MD. These programs are not able to supply adequate numbers of PAs. In addition, The Association of Pathologists' Assistants recently indicated that on-the-job training for PAs will no longer be recognized and that PAs must successfully complete a NAACLS-accredited program in order to be eligible for certification as a PA. Employer demand for PAs is high, starting salaries for PAs are excellent, and the IU DPLM has received numerous serious inquiries from prospective students. At present, students in Indiana do not have a PA program available to them within the state. The addition of the PA degree track to the existing M.S. program in Pathology would provide this opportunity for students and would allow Indiana University to provide well educated PAs to meet the increasing demand for such individuals. In addition, with the current M.S. program in Pathology focusing on clinical and experimental pathology, the addition of the PA track would allow students to focus on the other areas within pathology, including surgical, autopsy, forensic, and pediatric pathology.

**VI. Describe the student population to be served.** The program is designed to serve individuals holding baccalaureate degrees in various clinical and basic science-related fields (clinical laboratory science, cytotechnology, biology, chemistry, etc.) who have an interest in pathology, particularly the anatomic aspect of pathology.

**VII. How does this program complement the campus or departmental mission?** IUPUI is committed to meeting the higher education needs of Indiana students, and a need for more science-oriented M.S. degree students has been identified. In addition, as stated in the "Vision, Mission, Values, and Goals" statement from the 2002 IUPUI Faculty Council and Board of Trustees, IUPUI is committed to enhancing workforce skills to contribute to Indiana's economic development, to facilitating new graduate degree programs to meet local, national, and global needs, and to increasing the number of M.S. and Ph.D. students at IUPUI. The new

PA program would contribute to all of these missions.

The DPLM in the Indiana University School of Medicine located on the IUPUI campus has a significant teaching mission, including education of medical students, dental students, and graduate students, as well as undergraduates in the areas of clinical laboratory science, cytotechnology, and histotechnology, and post-doctoral (researchers, house staff, and fellows) individuals in pathology and other medical subspecialties. The DPLM is staffed with medical and graduate teaching faculty involved in all aspects of pathology and pathology education. The educational programs in place at present within the DPLM as well as in other Indiana University School of Medicine departments provide many courses that will be used in the PA program. The DPLM has facilities that are suitable for PA education and can accommodate these students comfortably. Addition of the PA track to the existing M.S. program enhances the opportunities available in science-oriented education for Indiana students.

**VIII. Describe any relationship to existing degree programs with the IU system.** Graduate study in the area of pathology is a natural progression for B.S. graduates in the pathology areas of Clinical Laboratory Science and Cytotechnology. Likewise, those holding baccalaureate degrees in biology, chemistry, or other basic science area may find pathology an appealing option. The M.S. program in Pathology in the IU School of Medicine at IUPUI currently includes two tracks: pathology laboratory science and experimental pathology, both of which focus on the clinical and experimental areas within pathology. The addition of the PA track would complement the current M.S. tracks by providing students with the option to focus on the anatomic areas within pathology. There are no other degree programs within the IU system offering the educational opportunity provided by the PA program. Additionally, those who complete the M.S. PA program with thesis will be eligible to continue their studies in the Pathology Ph.D. program.

**IX. List and indicate the sources (including reallocation) of any new resources (personnel, financial, learning, etc.) required to implement the proposed program.**

**Faculty:** The DPLM has a large faculty (approximately 75 members), more than 30 of whom are members of the IU Graduate Faculty. Of the 30 current IU Graduate Faculty members, the following will have a role in educating PA students: Drs. Azzarelli, Cheng, Clark, Cramer, Davis, Eble, Ghetti, Hawley, Hull, Leland, Murrell, Orazi, Phillips, Pless, Ryder, and Ulbright. In addition, 10 faculty members of the DPLM who are expected to interact with the PA students were recently nominated for membership in the Graduate Faculty: Drs. Badve, Billings, Bonsib, Czader, Cummings, Hattab, Henley, Michael, O'Malley, and Saxena.

**Administration:** The DPLM currently has in place a full system for administration of graduate studies. The new M.S. PA track will be administered through the existing framework. No new administration is needed. Program officials will be as follows:

1. Medical Director: Dr. John N. Eble, chair of DPLM and a full member of the IU Graduate Faculty. The medical director provides continuous medical direction for clinical instruction and for integration with other educational programs. This individual must be a licensed, board certified anatomic pathologist.
2. PA program director: A member of the current PA staff in the DPLM will be named as Program Director for the PA program. The program director coordinates the technical program

and deals with accreditation and certification procedures. This individual must be an M.D., Ph.D., or a graduate of a NAACLS accredited PA program with an M.S. degree.

3. Graduate Adviser: Diane S. Leland, Ph.D., current Pathology Graduate Program Adviser and full member of the IU Graduate Faculty. Dr. Leland currently oversees recruiting, admissions, monitoring, counseling, and other general educational issues involved with the Pathology graduate programs. She will perform these same functions for the M.S. PA track.

**Facilities:** The DPLM also has teaching space in the Medical Sciences Building, currently used for the education of medical students, that can be used by the PA students as well. An extremely valuable component of the DPLM facilities is the hospital laboratory space currently occupied by DPLM pathologists, laboratories, and staff. These facilities, located in campus hospitals (University, Riley, Methodist, Wishard, and Roudebush VA Hospital), will provide sites for practical experience for the PA students.

**Library holdings, equipment, laboratories, clinical and research facilities** available to other DPLM graduate students will be available to the PA program students. PA program students will have access to all of the equipment in the DPLM diagnostic anatomic pathology laboratories located in the various hospitals. Additional laboratory sites may be available at off-campus locations of AmeriPath Laboratories and the Dennis Nicholas Forensic Pathology Institute (Marion County Coroner's Office). Anatomic pathology instrumentation includes but is not limited to cryostats, microtomes, automatic staining devices, centrifuges, autopsy suite equipment, microscopes (includes light, immunofluorescence, electron), digital cameras, photography stations, plastination devices, and computers (hospital information systems, laboratory information systems, personal computers). All small equipment such as scalpels, forceps, etc. needed for dissection are available.

**Current assets for research/training:** The DPLM has an impressive array of educational programs, ranging from undergraduate Clinical Laboratory Science and Cytotechnology, to M.S. and Ph.D. in Pathology, to medical and dental student education. Experience with such programs had equipped the DPLM faculty with a broad base of educational expertise essential for successful education of students; this will be an important component of the new PA program. Educational materials (On-course [ANGEL] computer images, educational units, etc.) developed for teaching of anatomic pathology to other student groups will be readily available for use with PA students.

**New courses:** Six new courses have been developed to support the PA program. Three of these courses represent totally new offerings: C690 Techniques for Specimen Processing, C691 Gross Surgical and Pediatric Pathology Techniques, and C692 Autopsy and Forensic Pathology Techniques. The three remaining new courses, C693 General and Clinical Pathology, C694 Systemic Pathology, and C695 Practicum for Pathologist Assistants, all use portions of existing courses or training programs. Course directors, faculty, and technical staff, selected from existing faculty and staff, have developed and will teach these courses; no new faculty or staff is required, and existing teaching resources (classrooms, laboratories, etc.) are being used. Contributions (i.e. several lectures) from other campus departments, namely the Office of Visual Media, will be needed for one of these courses. These arrangements have been made.

New Course Number and Description	Director/Grad Faculty Status
C690 Techniques for Specimen Processing, 2 cr: Didactic and laboratory sessions focusing on tissue procurement, processing, and fixation; histologic staining—both routine and special stains; cytopathology techniques in sample preparation and staining; immunostaining; and introduction to electron microscopy methods.	John N. Eble. (Full Member)
C691 Gross Surgical and Pediatric Pathology Techniques, 3 cr. Didactic and laboratory experiences in surgical/pediatric pathology to introduce the students to related topics and techniques. Emphasis is on proper handling and evaluation of tissues removed during surgery and examined in the surgical or pediatric pathology laboratory. A sequence of didactic sessions involving human embryology will provide the foundation for evaluation of pediatric samples. An additional focus of this course is medical photography. Appropriate medical terms will be introduced and incorporated.	Steve Bonsib. (Nominee for Full Member)
C692 Autopsy and Forensic Pathology Techniques: Course Director, 3 cr. Introduction to the techniques involved in all phases of the human post-mortem examination, including evisceration, dissection, description of findings, and preparation of postmortem reports. Students receive basic instruction in the function of the autopsy service and the hospital morgue. An additional focus of this course is forensic pathology techniques and protocols. Appropriate medical terms will be introduced and incorporated.	Dean Hawley (Full Member)
C693 General and Clinical Pathology, 4 cr. Introduction to the basic concepts of pathologic processes that provides the students with a working knowledge of clinical pathology, including clinical chemistry, hematopathology, transfusion medicine, and clinical microbiology tests and procedures used in anatomic pathology. Existing lectures, conference sessions, and laboratory exercises from the first two blocks of C603 General Pathology course will be the basis for the didactic component of the course. Conferences and demonstrations designed and personalized to meet the needs of pathologist assistants (these are not used by the medical students in C603) will make up the final block of the C693 course.	Tom E. Davis (Full Member)
C694 Systemic Pathology: Course Director, 3 cr. Introduction to the organ systems and the pathologic issues involving each system. Existing lectures from the C604 Systemic Pathology course will be the basis for the didactic component of the course. Several laboratory exercises, some from existing C604 sessions and some newly designed and personalized to meet the needs of pathologist assistants, will be included.	John Pless (Full Member)
C695 Practicum for Pathologist Assistants: Course Director: 7-9 cr. Practical experience in the methods of gross tissue description, dissection, preparation, and fixation and in preparing for storage of surgical specimens for light, immunofluorescent, immunohistochemical, frozen, and electron microscopic evaluations. In addition, the techniques of autopsy dissection, including summarization of clinical histories and gross autopsy findings are included. Students are expected to perfect their dissection skills, demonstrate the ability to conduct full autopsy prosections in all possible situations, and write full preliminary autopsy reports by the final rotation. The student will complete month-long modules of training at various facilities throughout Indianapolis. Locations may include Indiana University Hospital, Riley Hospital for Children, Methodist Hospital, Ameripath Laboratories, Wishard Hospital, Roudebush VA Hospital, and other suitable locations. At each site, the student will receive hands-on training and hone the skills necessary to be capable of practice as a pathologist assistant. On alternate weeks, a didactic session is held during the practicum experiences. The didactic sessions focus on issues of medical ethics, laboratory operations and management, laboratory and hospital information systems, educational methodologies, etc.	Tom Ulbright (Assoc Member)

**X. Describe any innovative features of the program (e.g. involvement with local or regional agencies, offices, etc.; cooperative efforts with other institutions; opportunities for students, etc.).** The PA program, simply by virtue of the scarcity of these programs in the U.S., is innovative. Completion of the program qualifies the graduates to sit for national certification examinations for PAs. Employment opportunities for such individuals are numerous, salaries are very good, job satisfaction is high, and long-term involvement in the career is common. The curriculum is expected to facilitate interactions with several local organizations including AmeriPath Laboratories and the Dennis Nicholas Forensic Pathology Institute (Marion County Coroner's Office).

The close relationship between the PA program and other undergraduate (i.e. Clinical Laboratory Science and Cytotechnology) and graduate programs (M.S. and Ph.D. in Pathology) within the DPLM facilitates strong commitment to the discipline, career development, stimulation of collaborative research efforts, and interchange of information. The PA program fills a gap in the educational structure in pathology-related education and training and provides students in Indiana with an opportunity to experience this program at a state institution. The focus on anatomic pathology opens a scientific area that was previously restricted to qualified M.D. pathologists. The PA program provides access to the workings of this area of pathology and allows others to pursue service or research opportunities in this area. Offering both thesis and non-thesis options, the PA program represents a career ladder for those with undergraduate degrees in areas of pathology such as Clinical Laboratory Science, Cytotechnology, and Histotechnology. Progress to the M.S. Pathologist Assistant level represents a pathway toward greater independence in the workplace, increased opportunities, and better salaries. Students who choose the thesis option are eligible to continue their studies toward the Ph.D. in Pathology, which affords focus on research, prepares the individual to participate in post-secondary education, and broadens the horizons for career focus.

**Appendices:**

Appendix A: Proposed Curriculum

Appendix B: Program Abstract

Appendix C: Letter of Support from the Dennis Nicholas Institute for Forensic Science

Appendix D: Letters of Support from other departments

**Appendix A**  
M.S. Pathologist Assistant–Proposed Curriculum

Semester/Course	Credits
<b>Year 1</b>	
<b>Fall Semester</b>	
Introductory Biochemistry B500 or 533	3
Basic Histology D502	4
Human Physiology F503	4
<b>Spring Semester</b>	
Gross Anatomy D501	5
Microbiol/Immunol J510	3
Techniques for Specimen Processing C690*	2
<b>Summer 1</b>	
Gross Surgical and Pediatric Pathology Techniques C691*	3
<b>Summer 2</b>	
Autopsy and Forensic Pathology Techniques C692*	3
<b>Year 2</b>	
<b>Fall Semester</b>	
General and Clinical Pathology C693*	4
Practicum for Pathologist Assistants C695 (1 cr./unit)*	3**
<b>Spring Semester</b>	
Systemic Pathology	3
Practicum for Pathologist Assistants C695 (1 cr./unit)*	4**
<b>Summer 1</b>	
Practicum for Pathologist Assistants C695 (1 cr./unit)*	1-2**
<b>Summer 2</b>	
Research in Pathology C859 continues for those pursuing the thesis option	

\*New course

\*\*A thesis option is available. Students pursuing the thesis option will substitute 2 credits of C859 Research in Pathology for one each of two elective 1-credit practicum experience and register for at least 2 additional credits of C859 until the research/ thesis is complete. These students will also enroll in C808 Graduate Student Seminar for 1 credit.

Abstract

M.S. in Pathology: Pathologist Assistant  
to be offered by  
The Department of Pathology and Laboratory Medicine  
for the University Graduate School, Indiana University, IUPUI

**Objectives:** The major objective of the program is to educate scientists in the area of anatomic pathology, preparing these individuals to serve as pathologist assistants (PAs). The PA, a health professional qualified by academic and practical training to assist in providing service in anatomic pathology under the direction and supervision of a qualified anatomic pathologist, is a recognized specialty accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). This program would be one of only seven in the U.S. The M.S. Pathologist Assistant track will be added as a new track to the existing M.S. programs in Pathology. Current M.S. tracks in Pathology are experimental pathology and laboratory science, both of which are thesis-based research programs focused in the experimental or clinical areas of pathology. The M.S. track for PAs will be based in the anatomic area of pathology.

**Clientele to be Served:** The program is designed to serve individuals holding baccalaureate degrees in various science-related fields (clinical laboratory science, cytotechnology, biology, chemistry, etc.) who have an interest in pathology, particularly the anatomic aspect of pathology. This program is a logical career ladder for those holding the B.S. degree in the pathology-related areas of Clinical Laboratory Science and Cytotechnology.

**Employment Possibilities:** Demand for trained/certified PAs is high. Salaries are excellent. There are only six accredited PA programs in the U.S. The employer demand for PAs exceeds the supply of PAs produced at present.

**Curriculum: (See Table for Complete Course Listing):** A class size of eight students each year is anticipated for the PA program. The program requires a minimum of 22 months and 43 credits. Five existing 500-level basic science courses will be used, and six new course have been developed. Descriptions of the new courses follow.

C690 Techniques for Specimen Processing (2 cr.): Course director: John N. Eble. Tissue procurement, processing, and fixation; histologic staining—both routine and special stains; cytopathology techniques in sample preparation; and staining, immunostaining, and electron microscopy sample preparation.

C691 Gross Surgical and Pediatric Pathology Techniques (3 cr.): Course director: Stephen Bonsib. Proper handling and evaluation of tissues removed during surgery and examined in the surgical or pediatric pathology laboratory. Embryology will be integrated into the pediatric pathology sequence, along with medical photography and related medical terminology for all topics.

C692 Autopsy and Forensic Pathology Techniques (3 cr.): Course director: Dean Hawley. Techniques involved in all phases of the human post-mortem examination, including evisceration, dissection, description of findings, and preparation of postmortem reports. An additional focus of this course is forensic pathology techniques, along with related medical terminology.

C693 General and Clinical Pathology (4 cr.): Course director: Thomas E. Davis. Basic concepts of

pathologic processes and knowledge of clinical pathology, including clinical chemistry, hematopathology, transfusion medicine, and clinical microbiology tests and procedures used in anatomic pathology. The course integrates selected lectures and laboratory sessions from the C603 General Pathology course, with new sessions focusing on the needs of pathologist assistants.

C694 Systemic Pathology (3 cr.): Course director: John Pless. Organ systems and the pathologic issues involving each. The course integrates selected lectures from the C604 Systemic Pathology course with new sessions focusing on the needs of pathologist assistants.

C695 Practicum for Pathologist Assistants (7-9 cr.): Course director: Thomas Ulbright. This course provides practical experience in hospital and other settings in surgical, pediatric, autopsy, and forensic pathology. Students perfect their skills in 7-9 month-long modules of training at various facilities throughout Indianapolis. At each practicum site, students receive hands-on training and hone the skills necessary to be capable of practice as a pathologist assistant. Didactic sessions involving laboratory management, informatics, compliance, accreditation, educational techniques, and ethics will be integrated into the practicum schedule.

#### Curriculum for M.S. in Pathology: Pathologist Assistant

Course	Credits
Year 1 Fall:	
Introductory Biochemistry B500 or 533	3
Basic Histology D502	4
Human Physiology F503	4
Year 1 Spring:	
Gross Anatomy D501	5
Infectious Microbes and Host Interactions J510	3
Tissue Processing Methods C690*	2
Year 1 Summer 1 and 2:	
Gross Surgical and Pediatric Pathology Techniques C691*	3
Autopsy and Forensic Pathology Techniques C692*	3
Year 2 Fall:	
General and Clinical Pathology C693*	4
Practicum for Pathologist Assistants C695*	2-3**
Year 2 Spring:	
Systemic Pathology C694*	3
Practicum for Pathologist Assistants C695*	3-4**
Year 2 Summer 1	
Practicum for Pathologist Assistants C695*	1-2**

\*New course

\*\*A thesis option is available. Students pursuing the thesis option may substitute 2 credits of C859 Research in Pathology for each of two elective 1-credit practicum experiences from the C695 Practicum for Pathologist Assistants. At least two additional credits of C859 will be required. Thesis-option students will continue their research after completion of all PA program requirements. Research will continue until a project, with a thesis equivalent in all respects to other M.S. in Pathology projects/theses, is complete. Thesis option students will also enroll in C808 Graduate Student Seminar for 1 credit. Successful completion of the thesis option qualifies graduates to apply for entry into the Pathology Ph.D. program.

## Review for proposed M.S. track in Pathology-Pathologist Assistant

There is an existing M.S. degree in the Department of Pathology and Laboratory Medicine. It currently has two tracks, one in Experimental Pathology and one in Pathology Laboratory Science; both are research based. This track is not research based; instead, it focuses on developing a competent pathologist assistant. This is a person who is trained and educated to assist the pathologist in examining, dissecting, and processing tissue samples and participate in gross autopsy dissection.

Applicants to the program would need to meet the same requirements currently listed for the M.S. in Pathology. The curriculum consists of 43 required credit hours; these credit hours and courses have been selected so as to meet the requirements from the national accrediting agency for pathologist assistants. Six new courses will be needed to include a practicum; however, no new faculty are requested and existing administrative structures would house this track.. Space is available to offer this track.

One of the reasons for the establishment of the program at this point in time is that on the job training will no longer be recognized by the accrediting agency as being acceptable to educate and train pathology assistants. Currently, there are only 6 accredited programs in the country. The proposal for the new track states that employer demand for pathologist assistants is high, starting salaries are excellent, and the department has received numerous serious inquiries from prospective students; however, no other data is provided as to a needs assessment of prospective employers or students (I would recommend that this be done). The proposal has the support of interested parties within the medical school. The track would fit into the emphasis on the health and life sciences on the IUPUI campus.

I recommend acceptance of this track. While not a requirement for acceptance, I would encourage the department to do a needs survey of prospective employees and students to determine the actual need for the program and perhaps influence the format.

## Review for Proposal for M.S. in Pathology: Pathologist Assistant

**Documents Reviewed:** Proposal for new M.S. Track, including Appendix A (Proposed Curriculum), Appendix B (Abstract), and Appendix D (Six letters of support from the Departments of Pharmacology & Toxicology, Medical & Molecular Genetics, Anatomy & Cell Biology, Medical Neurobiology, Microbiology and Immunology, and Biochemistry.)

**Summary:** The Department of Pathology and Laboratory Medicine proposes a new M.S. track in Pathology: Pathologists Assistant (PA). This track would join two other tracks in the program, one in Experimental Pathology and another in Pathology Laboratory Science. The existing tracks focus on clinical and experimental pathology, and the proposed track is in the area of anatomic pathology. The track would prepare a health professional to assist in processing, examination, and dissection of tissue samples; autopsy dissection; and anatomic pathology research.

The national shortage of pathologists and health care cost containment needs are two compelling reasons to justify this track. Currently only six accredited PA programs exist in the US, and PAs must successfully complete an accredited program, not prepare by on-the-job training, to be eligible for certification. This track would fill an educational gap in pathology-related education and training, and address a health professional shortage.

Academic eligibility for this track is the same as all Pathology M.S. applicants. Curriculum requirements meet standards specified by National Accrediting Agency for Clinical Laboratory Sciences for accredited PA programs, namely 34 course credits and 9 practicum credits for a total of 43 credit hours. Of these courses, five exist and six are new. The program would be a minimum of 22 months. Administrative and teaching resources are presented as adequate, as are the library, lab and research resources. They anticipate annual classes of 8 students.

**Recommendation:** Accept without revision

**Discussion:** This proposal presents a clear explanation and compelling justification for a new track within the M.S. in Pathology. The program would meet a societal need, and prepare graduates for excellent employment possibilities. Launching this track here when only 6 other schools have done so is an accomplishment to support. Program planning, course development, faculty expertise, resource allocation and program evaluation appear well conceptualized and adequate. Broad interdisciplinary support exists, as evidenced by supporting emails from six different departments.

This track is sufficiently differentiated from the two existing M.S. tracks in Pathology. One reviewer noted that the only overlapping course was C808, a seminar course. This track focuses more on the practical application of the information in the clinical setting, requiring the curriculum to include content on interpersonal communication, ethical and moral principles, and professional judgment related to quality patient care. Another differentiation occurs in the applicant pool, where clinical pathology experience and/or a baccalaureate degree in Clinical Laboratory Science, Cytotechnology or Histotechnology are preferred. They could, therefore, draw from a different pool of applicants than for the other tracks.

The new track seems well developed and appropriate for IUPUI's mission and resources.

## Review of the M.S. Track in Pathology:M.S. Pathologist Assistant

The program appears very timely and necessary. My only concern, albeit a major concern, is that its usefulness appears to hang on becoming NAACLS accredited. There is very little discussion of what this entails, what the criteria are, how well they can be met, how long this will take, etc. Without having their effort put into this context, it is impossible to determine the robustness of this program.

Defer pending revisions.



electronic laboratory notebooks (ELN), data mining and visualization of patterns of data are covered in the course.

Justification: Development of new area within the informatics discipline.

**INFO I550 Legal and Business Issues in Informatics 3 Credits**  
Provide students with a solid foundation on legal and business matters that impact informatics and new media, including intellectual property, privacy, confidentiality and security, corporate structure, project planning, tax implications, marketing, obtaining capital, drafting business plans and working with professionals such as attorneys, accountants, and insurance agents.

Justification: Continuing to develop informatics curriculum.