



American Board  
of Toxicology



Exhibitor Hosted Session  
SOT 2019

**DABT: The Value of Certification  
and Overview/Rationale for Revised  
Exam and Recertification  
Procedures**



## American Board of Toxicology

### Vision

To establish a globally recognized credential in toxicology representative of competency and commitment to human health and environmental sciences.

### Mission

To identify, maintain, and evolve a standard for professional competency in the field of toxicology.

### Purpose

- Encourage the study and science of toxicology
- Stimulate advancement in the field of toxicology by establishing standards of practice and keeping these standards current with advances in toxicology
- Confer recognition upon members of the profession who, measured against such standards, demonstrate competence



## ABT History

- ▶ Incorporated in Washington, DC in 1979
- ▶ First exam was given on August 4, 1980
- ▶ Exam has been given in 10 countries over the years
- ▶ 3543 candidates have passed the exam



## Certification Best Practices

- ▶ The American Board of Toxicology Board of Directors is committed to conducting the certification exam in accordance with certification industry best practices.
- ▶ ABT is a member of the Institute for Credentialing Excellence (ICE) <http://www.credentialingexcellence.org/>
- ▶ The mission of ICE is to advance credentialing through education, standards, research and advocacy to ensure competence across professions and occupations.
- ▶ ABT regularly attends ICE's annual conference to keep up with best practices and trends in the certification industry.

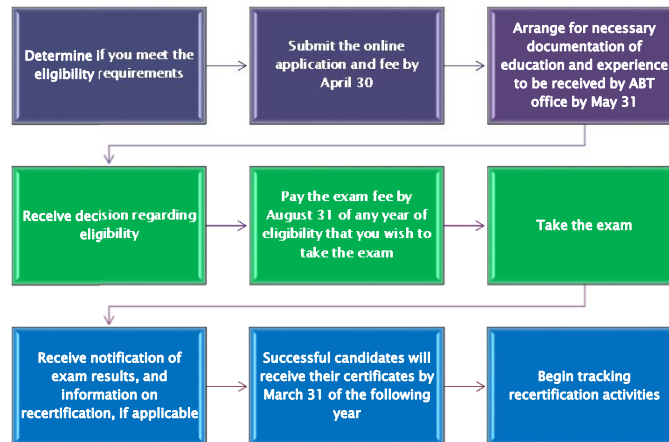


## Certification Process





## Certification Process



## Eligibility

- ▶ Doctoral degree in an appropriate scientific field and at least three years of full-time experience in toxicology
- OR**
- ▶ Master's degree in an appropriate field and at least seven years of full-time *post-baccalaureate* experience in toxicology
- OR**
- ▶ Bachelor's degree in an appropriate field and at least ten years of full-time experience in toxicology
- In each case, the applicant must have active involvement in the practice of toxicology within the year immediately prior to application



## Application Process

- ▶ Applications accepted online only
- ▶ Deadline to apply for each year's exam is April 30
- ▶ All supporting documentation (transcripts, supervisor letters) due May 31
- ▶ Eligibility decisions typically sent out in late June
- ▶ Eligibility is for a period of 3 years
- ▶ All information available at [www.abtox.org](http://www.abtox.org) in the Candidate Handbook



## Certification Examination

- ▶ A separate exam fee is due by August 31 in any year of eligibility in which the exam will be taken.
- ▶ It is administered once per year in October. This year's exam is Saturday, October 12, 2019
- ▶ The exam is paper/pencil
- ▶ Locations in 2019:
  - North Carolina
  - California
  - Scotland
  - India
  - Korea



## Examination Details

- ▶ Exam consists of 200 questions graded as a whole
- ▶ Two 3-hours sessions of 100 questions each to allow for a break
- ▶ Examination based on a practice analysis study of the knowledge required for general toxicology



## How Has the ABT Exam Changed?

- ▶ The Practice Analysis resulted in a delineation of the domains and tasks used in toxicology practice.
- ▶ The delineation was organized into Domains and Tasks, upon which the exam is now based.
- ▶ The exam was shortened from 300 questions to 200 questions.
- ▶ The exam is graded as a whole rather than in three separate parts as previously.
- ▶ The exam moved to questions with one single correct answer and only four answer choices.



## ABT Practice Analysis

- ▶ Survey conducted in collaboration with SOT in 2015
- ▶ Study of the knowledge required for general toxicology
- ▶ Data useful for all toxicologists
- ▶ Exam designed to reflect this knowledge
- ▶ Published manuscript is open access:

A practice analysis of toxicology. (2016). *Regulatory Toxicology and Pharmacology*, 140-146.

doi:<https://www.journals.elsevier.com/regulatory-toxicology-and-pharmacology>



## Examination Domains

Domain/Sub-domain	% of Exam
I. Design, Execute, and Interpret Toxicology Studies	31
II. Descriptive Toxicology: Environmental, Clinical, Non-clinical, and Forensic Investigations	13
III. Mechanistic Toxicology	9
IV. Risk Assessment (Total, A through D)	<u>38</u>
A. Hazard Identification	13
B. Exposure Assessment	8
C. Dose Response Assessment	9
D. Risk Characterization and Management	8
V. Applied Toxicology: Public, Environmental, and Occupational Health	9
TOTAL	100

The full list and tasks for each domain are available in the Candidate Handbook on the ABT website



## The Making of the ABT Exam

- ▶ Each question undergoes multiple, rigorous reviews by a special Question Writing Committee of trained volunteers before being put into ACTIVE status.
- ▶ Each year, a preliminary exam undergoes more review by an Exam Committee, the members of which are also current ABT Board members.
- ▶ Each question undergoes even further review by the full ABT Board of Directors during their summer meeting.
- ▶ By the time a question reaches the final exam, it has been reviewed a minimum of 8 times.



## Exam Question Format

All questions are multiple choice with a single correct answer

Example:

What is a major life-threatening effect following poisoning with phenol?

- A) optic neuritis with permanent blindness
- B) severe gastrointestinal irritation
- C) esophageal stricture
- D) fatty degeneration of the liver





## After the Examination...

- ▶ Exams are graded electronically.
- ▶ Exam statistics are thoroughly analyzed and discussed by the ABT Board.
- ▶ The passing score is based on a Standard Setting exercise. Details can be found on the ABT website about this process.
- ▶ Results are sent out in late November.
- ▶ Unsuccessful candidates are given feedback on how they performed in each Domain.
- ▶ Candidates whose eligibility has expired must reapply and pay the application fee again.



## Recertification Basics

- ▶ Certification as a Diplomate of the American Board of Toxicology® (DABT) is for a period of five years
- ▶ Process is the same for all diplomates
- ▶ Applications are due by March 31 in the fourth year of a recertification cycle.



## Recertification Overview

### Active Practice

Maintain employment in the field or otherwise show the active practice of toxicology.

### Continuing Education

Documented continuing education – 100 credits over 5 year period

### Maintaining Expert Knowledge

Literature Review Process - consists of reading select open-access materials and answering questions about them



## Recertification Tips

**All Recertification Information can be found in the Recertification Manual on the ABT website.**

- ▶ 20 Continuing Education credits are needed each year
- ▶ There are many ways these can be earned.
- ▶ SOT and other organizations offer free webinars in addition to paid courses
- ▶ Track CE as it is earned!!!



## Benefits of Certification

### For Toxicologists

- Advantage in the job market/salary enhancement
- Recognizes broad expertise in general toxicology
- Recognized worldwide
- Enhances credibility in consulting and legal testimony.
- Job Listing Service

### For Employers

- Objective demonstration of breadth and current knowledge of a toxicologist
- Recognized by national registries in EU

### For Society

Provides world-wide recognized standard for competence and current knowledge in general toxicology



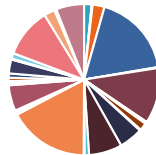
## iPhone and Android Practice App

- ▶ Redesigned in 2018
  - Questions match new exam format
  - Categorized into domains from practice analysis
  - Price lowered
- ▶ Over 400 questions
- ▶ Search for ABT Exam Practice on iTunes App Store and Google Play



## Countries with ABT Diplomates

Countries with DABTs



- Australia
- Austria
- Belgium
- Canada
- Cayman Islands
- China
- Croatia
- Cyprus
- Denmark
- Finland
- France
- Germany
- Hong Kong
- Hungary
- India
- Israel
- Italy
- Japan
- Malaysia
- Netherlands
- New Zealand
- Singapore
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- Thailand
- United Arab Emirates
- United Kingdom
- United States (not depicted in graphic)



## Current Stats and Fun Facts

### FUN FACTS

Total Active DABTs

2490

10

Countries in which exam has been given

Total Board members since 1979

115

3543

Total candidates that have passed exam

Countries with active Diplomates

31



## Comparisons of General Toxicology Certifications

ABT	ERT	ATS
<b>Diplomate of the American Board of Toxicology (DABT)</b>	<b>European Registered Toxicologist (ERT)</b>	<b>Fellow of the Academy of Toxicological Sciences (Fellow, ATS)</b>
<p><b>Requirements</b></p> <p>One of the following combinations of education in toxicology or a related field and full-time professional experience in the active practice of toxicology in one of the following combination:</p> <ul style="list-style-type: none"> <li>• Ph.D /3 years of experience</li> <li>• Master's/7 years of experience</li> <li>• Bachelor's/10 years of experience</li> </ul> <p><b>AND</b></p> <p>Successful performance on the ABT certification examination</p>	<p><b>Requirements</b></p> <ul style="list-style-type: none"> <li>• Academic degree in a relevant field</li> <li>• Further theoretical training</li> <li>• Minimum of 5 years of practical training and expertise in toxicology</li> <li>• Current active professional participation in the field of toxicology</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>• Be admitted to a National Register</li> <li>• Request certification by EUROTOX</li> </ul>	<p><b>Requirements</b></p> <ul style="list-style-type: none"> <li>• Relevant Education, both formal and continuing</li> <li>• Evidence of professional practice of toxicology</li> <li>• Professional recognition</li> </ul> <p><b>AND</b></p> <p>Admission to the Academy after peer review of and approval of credentials by the Board of the Academy</p>



## Follow us on Social Media

**Facebook:** [facebook.com/DABTExam](https://www.facebook.com/DABTExam)

Interesting videos, fun facts, updates

**Twitter:** [@ToxicologyExam](https://twitter.com/ToxicologyExam)

- Tuesday Trivia questions
- Updates and deadlines

**LinkedIn:**

<https://www.linkedin.com/company/abtox/>

Notice when jobs are posted on Diplomate portion of website



## Board of Directors

### EXECUTIVE COMMITTEE

- ▶ **Kevin Welch (President)**  
United States Department of Agriculture
- ▶ **Andy Kiorpes (Vice President)**  
River Bluff Associates
- ▶ **Don Stump (Treasurer)**  
Charles River Laboratories
- ▶ **Amy Roe (Secretary)**  
Procter and Gamble



## Board of Directors

### Board Members

- ▶ **Drew Badger** (Dermira)
- ▶ **Robinan Gentry** (Ramboll)
- ▶ **Ailsa Jackson** (FMC Corporation)
- ▶ **Pius Joseph** (NIOSH)
- ▶ **Daniel Kemp** (Precision Biosciences)
- ▶ **Robert Mitkus** (BASF Corp)
- ▶ **Matthew Reed** (Coelus)
- ▶ **Jack Snyder** (Cato Research)



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Thank you!

**Questions?**