The Board Review Course & Update (BRCU) focuses on key information needed to prepare for the ABIM Nephrology Board Certification and Maintenance of Certification (MOC) Examinations. The American Society of Nephrology (ASN) structures and schedules BRCU to maximize participants’ readiness for these examinations. This course also provides a comprehensive and indispensable update for practicing nephrologists.

BRCU Format
Each BRCU topic section and its applicable time allocation are patterned after the ABIM nephrology examination blueprint. Lectures, case discussions, and panel Q&A sessions are integral parts of the BRCU program. Relevant physiology and pathophysiology are blended with clinical discussions aimed at reviewing, updating, and preparing for the Certification and MOC examinations.

Learning Objectives
At the conclusion of this activity, the participant will be able to:
1. Interpret the fundamental concepts of nephrology in the areas of kidney function and structure; fluid and electrolyte disorders; glomerular and vascular disorders; potassium and acid base; tubulointerstitial disorders and nephrolithiasis; CKD, ESRD, and dialysis; hypertension; AKI, ICU, and pharmacology; bone and mineral metabolism; and transplantation.
2. Formulate diagnostic and therapeutic options for the management of kidney diseases.
3. Test individual medical practice competence against a series of simulated patient/case scenarios.

Target Audience
- Senior Nephrologists: Practicing nephrologists in all key areas of the specialty. The course also benefits pediatric nephrologists, intensivists, and hospitalists.
- Board Examination Participants: Individuals are thoroughly prepared for upcoming Certification and MOC exams.
- Nephrology Fellows: Fellows seeking a detailed outline and discussion of what their current fellowship program should include.
- FASN Candidates: The 62.0 CME credit hours earned at BRCU can be applied towards the 70 hours required to qualify for FASN status.

Accreditation and CME Credit Designation Statements
The American Society of Nephrology (ASN) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

ASN designates this enduring material for a maximum of 62.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Important: The Accreditation Council for Continuing Medical Education (ACCME) prohibits physicians from claiming CME credits for activities identical in educational material. This includes enduring activities derived from live activities. Participants of the BRCU 2016 live course cannot claim CME credits for BRCU Online 2016.

ABIM MOC Statement
Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 62.0 MOC points in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Statement from ABIM
This course has been developed as an original and independent educational offering based on the public ABIM examination blueprint and is not approved or endorsed by ABIM. In accordance with ABIM policy, no ABIM Board members have been involved in the development of this course. ASN cannot guarantee that attending this course will result in passing the ABIM examination.

Medium or Combination of Media Used
Streaming media of slides with audio
Activity Evaluation, CME Credits, and MOC Points

1. Go to [www.asn-online.org/education/cme](http://www.asn-online.org/education/cme) and login (at the bottom right of the page). You will be redirected to the ASN CME Center.
2. Click **Enter Activity** for “Board Review Course & Update Online 2016.”
3. Under the **To Do List** on the left navigation:
   a. Click the **Demographics & General Eval** link, and enter your information.
   b. Click the **Session/Speaker Evaluations** link if applicable, and enter your information.
   c. Complete the **Practice Exam** (optional). Your exam score is provided in real-time. Upon completion, you will be able to access the Answers and Explanations for view/print. A score of 80% or greater is considered passing. No CME credit is provided for taking the exam.
   d. Complete the **Post Test** (required for CME credits and MOC points). Physicians participating in this activity will be given two (2) attempts to pass the Post Test (minimum performance level = 70% correct). If you do not pass the Post Test within 2 attempts, you cannot claim CME credits and MOC points for this activity. [Note: In accordance with regulations by the American Medical Association (AMA), participants of enduring/online activities must pass that activity’s Post Test in order to claim CME credits.]
   e. If you are a physician, click the **Claim CME Credits** link, check the Attestation Statement box, and enter the number of CME credits commensurate with the extent of your participation in the activity.
   f. If you are a physician, click the **Claim MOC Points** link, check the Attestation Statement box, and enter the number of MOC points commensurate with the extent of your participation in the activity.
   g. Click the **Print Your Certificate** link.

Credits will be posted to your ASN Transcript immediately. View/Print Transcript at My CME Center.

**Post Test, CME, and MOC Termination Date**
August 31, 2017

**Estimated Time for Completion**
62.0 hours

**Faculty**
Mark A. Perazella, MD, FASN, Yale School of Medicine (Course Co-Director)
Mitchell H. Rosner, MD, FASN, University of Virginia School of Medicine (Course Co-Director)
Zalman S. Agus, MD, University of Pennsylvania School of Medicine
Michael Allon, MD, University of Alabama at Birmingham School of Medicine
William M. Bennett, MD, FASN, Legacy Good Samaritan Medical Center
John M. Burkart, MD, Wake Forest University School of Medicine
Christopher T. Chan, MD, Toronto General Hospital
Alfred K. Cheung, MD, University of Utah School of Medicine
Steven G. Coca, DO, Icahn School of Medicine at Mount Sinai
Thomas D. DuBose Jr., MD, FASN, Wake Forest University School of Medicine
Michael Emmett, MD, Baylor University Medical Center
Ronald J. Falk, MD, FASN, University of North Carolina School of Medicine
Fernando C. Fervenza, MD, PhD, FASN, Mayo Clinic
Barry I. Freedman, MD, Wake Forest University School of Medicine
Richard J. Glassock, MD, David Geffen School of Medicine at UCLA
Raymond C. Harris, MD, FASN, Vanderbilt University School of Medicine
Susan Hedayati, MD, FASN, University of Texas Southwestern
Donald E. Hricik, MD, University Hospitals Case Medical Center
Michael G. Ison, MD, Northwestern University Feinberg School of Medicine
Andrew S. Levey, MD, Tufts Medical Center
Roslyn B. Mannon, MD, FASN, University of Alabama at Birmingham
Glen S. Markowitz, MD, Columbia University Medical Center
Orson W. Moe, MD, University of Texas Southwestern Medical Center
Gilbert W. Moeckel, MD, PhD, FASN, Yale University School of Medicine
Patrick H. Nachman, MD, FASN, University of North Carolina School of Medicine
Joseph V. Nally, MD, Cleveland Clinic
Paul M. Palevsky, MD, FASN, University of Pittsburgh School of Medicine, VA Pittsburgh Healthcare System
Bliff F. Palmer, MD, FASN, University of Texas Southwestern Medical Center
Jai Radhakrishnan, MD, FASN, Columbia University Medical Center
Robert F. Reilly, MD, VA North Texas Health Care System
Stuart M. Sprague, DO, FASN, University of Chicago Pritzker School of Medicine
Theodore I. Steinman, MD, FASN, Harvard Medical School, Beth Israel Deaconness Medical Center
Faculty, Planner, and Staff Disclosure

It is the policy of American Society of Nephrology (ASN) that all individuals in a position to control the content of ASN’s sponsored CME activities are expected to provide full disclosure for both themselves and their spouse/partner, and to indicate to the activity audience any financial or other relationship held by themselves or their spouse/partner 1) with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial service(s) discussed in an educational presentation; and 2) with any commercial supporter(s) of the activity. All responses should reflect activities within the previous 12 months. This disclosure information is collected in accordance with Accreditation Council for Continuing Medical Education (ACCME). Furthermore, ASN requires all faculty to disclose at the time of their lecture any planned discussion of investigational and/or off-label use of pharmaceutical products or devices within their presentation. Participants should note that the use of products outside U.S. Food and Drug Administration (FDA) approved labeling should be considered experimental and are advised to consult current prescribing information for approval indications.

The intent of this policy is not to prevent expert faculty with relevant relationship(s) with commercial interest(s) from involvement in Continuing Medical Education (CME), but rather to ensure that ASN CME activities promote quality and safety, are effective in improving medical practice, are based on valid content, and are independent of control from commercial interests and free of commercial bias. In addition, all faculty members were instructed to provide balanced, scientifically rigorous, and evidence-based presentations.

ASN requires all individuals in a position to control content for this activity to complete disclosure forms on the ASN website. Responses are listed below.

Zalman Agus—Employer: Perelman School of Medicine at the University of Pennsylvania; Honoraria: UpToDate.

Michael Allon—Employer: University of Alabama at Birmingham; Consultancy: CorMedix, Gore; Scientific Advisor/Membership: CJASN Associate Editor.

William Bennett—Employer: Legacy Good Samaritan Medical Center; Honoraria: ASN.

John Burkart—Honoraria: ISPD, Univ of Missouri, Harvard; Scientific Advisor/Membership: NxStage; Other: Unrestricted educational grants to ISPD/Wake Forest for HDU's from Baxter, NxStage, Medigroup, Davita.

Christopher Chan—Employer: Toronto General Hospital, University Health Network; Consultancy: Baxter, NxStage, Intelomed; Scientific Advisor/Membership: Baxter, Intelomed, NxStage.

Alfred Cheung—Employer: University of Utah and Veterans Affairs Salt Lake City Healthcare System; Consultancy: AstraZeneca, Baxter, Baxalta, FibroGen, Humacyte, Keryx, TVA, UpToDate; Ownership Interest: Merck; Honoraria: AstraZeneca, Baxter, Baxalta, FibroGen, Humacyte, Keryx, TVA, UpToDate; Scientific Advisor/Membership: JASN, Hong Kong Journal of Nephrology, Kidney Diseases.

Steven Coca—Employer: Icahn School of Medicine at Mount Sinai; Consultancy: Aicuris, Lion Biotechnologies, EKF Diagnostics.

Thomas DuBose—Employer: Wake Forest University; Consultancy: Ardelyx, Relypsa, ZS Pharma; Honoraria: ASN, Ardelyx, Relypsa; Scientific Advisor/Membership: Relypsa, Ardelyx.

Michael Emmett—Employer: Baylor University Medical Center.

Ronald Falk—Employer: University of North Carolina at Chapel Hill; Honoraria: University organization for visiting professorships; Scientific Advisor/Membership: Journal of Clinical Investigators.

Fernando Fervenza—Employer: Mayo Clinic; Consultancy: Achillion Pharmaceutical, BioMarin Pharmaceutical; Research Funding: Genentech, Questcor/Mallinckrodt, Sanofi, Biogen Idec; Honoraria: UpToDate, ABIM; Scientific Advisor/Membership: JASN, UpToDate, ABIM – Nephrology.
Barry Freedman—**Employer:** Wake Forest School of Medicine; **Consultancy:** Isis Pharmaceuticals; **Research Funding:** Novartis Pharmaceuticals; **Patents/Inventions:** Wake Forest Health Sciences and Barry Freedman have applied for a patent for genetic testing for the APOL1 gene; **Scientific Advisor/Membership:** ESRD Network 6 Board of Directors (Volunteer Position).

Richard Glasscock—**Employer:** Bristol-Myers Squibb, Novartis, Genentech, Sanofi-Genzyme, Eli Lilly, QuestCor, Astellas, ChemoCentrix, Bio-marin, Aspreva (Vifor), Abbvie, NIH, UpTo Date, Am J Nephrol, Karger Publications; **Ownership Interest:** Reata; **Honoraria:** Eli Lilly, Bristol-Myers Squibb, QuestCor, Chemocentryx, Genentech, Novartis. Astellas, Aspreva (Vifor), Sanofi-Genzyme; **Scientific Advisor/Membership:** University Kidney Research Organization, JASN, Am J Nephrol, UpToDate; **Speakers Bureau:** Genentech.

Raymond Harris—**Employer:** Vanderbilt University; **Consultancy:** Promoeetic, Amgen, Lilly; **Research Funding:** Bristol-Myers Squibb, NIH-NIDDK, Veterans Administration, Prometic; **Honoraria:** U. Tokyo, UT Southwestern, U. Pennsylvania, Mid-Atlantic Young Investigators Forum, NIH, University of Virginia, Yale, Duke, StonyBrook; **Patents/Inventions:** eNOS db/db mouse; **Scientific Advisor/Membership:** University Kidney Research Organization, JASN, Am J Nephrol, UpToDate; **Speakers Bureau:** Lilly, Journal of Clinical Investigation Editorial Board, Prometic, NIH- PBKD Study Section, JDRF Innovation Study Section.

Susan Hedayati—**Employer:** University of Texas Southwestern, VA North Texas Health Care System; **Scientific Advisor/Membership:** American Heart Association, study sections, ASN Hypertension Advisory Committee, ASN Program Committee, 2015.

Donald Hricik—**Employer:** University Hospitals Case Medical Center; **Consultancy:** Oxford Immunotec; **Research Funding:** Novartis, Alexion, Astellas; **Speakers Bureau:** Relypsa.

Michael Ison—**Employer:** Northwestern University Feinberg School of Medicine; **Consultancy:** Paid Consultation (Paid to Michael Ison): Celltrion, Chimerix, Farmark, Genentech/Roche, Toyama/MediVector, Shionogi; Unpaid Consultation: BioCryst, Biota, Cellex, GlaxoSmithKline, Romark, NexBio, Theraclove, Unither Virology, Vertex; **Research Funding:** Alos, Astellas, Beckman Coulter, Chimerix, Gilead, Jansen/Johnson & Johnson, Vertex/Jansen; **Other:** Unpaid Consultation: BioCryst, Biota, Cellex, GlaxoSmithKline, Romark, NexBio, Theraclove, Unither Virology, Vertex; Data and Safety Monitoring Board Participation: Astellas, Jansen/Vertex.

Andrew Levey—**Employer:** Tufts Medical Center; **Research Funding:** BMS, Astellas, Alexion, Quark Pharmaceuticals; **Honoraria:** Academic medical centers for visiting professorships; **Patents/Inventions:** Patent submitted with Drs. Inker and Coresh for development of precise panel estimated GFR with markers identified using the Metabolon; **Scientific Advisor/Membership:** NKF.

Roslyn Mannon—**Employer:** University of Alabama at Birmingham; **Consultancy:** Astellas, Alexion; **Research Funding:** BMS, Astellas, Alexion, Quark Pharmaceuticals; **Honoraria:** Astellas, Alexion; **Scientific Advisor/Membership:** Associate Editor, Am J Transplant.

Glen Markowitz—**Employer:** Columbia University Medical Center.

Orson Moe—**Employer:** University of Texas Southwestern Medical Center; **Consultancy:** Allena, Ardelyx; **Scientific Advisor/Membership:** Editor, Seldin Giebisch The Kidney, Editor, Current Opinion of Nephrology and Hypertension, Editorial Board, JASN, Am J Physiology.

Gilbert Moeckel—**Employer:** Yale University School of Medicine.

Patrick Nachman—**Employer:** University of North Carolina; **Consultancy:** ChemoCentrix; **Research Funding:** Site PI for clinical trials (GSK, ChemoCentrix, Genentech, FDA, NIH); **Honoraria:** Health Advances LLC, Clearview, ASN (BRCU); **Scientific Advisor/Membership:** ASN (PGE Committee Chair).

Joseph Nally—**Employer:** Cleveland Clinic Q7; **Consultancy:** Amgen, MediBeacon; **Ownership Interest:** MediBeacon; **Honoraria:** ASN; **Scientific Advisor/Membership:** MediBeacon; **Speakers Bureau:** ASN BRCU.

Paul Palevsky—**Employer:** VA Pittsburgh Healthcare System and University of Pittsburgh; **Consultancy:** Baxter; **Research Funding:** Spectral Diagnostics; **Scientific Advisor/Membership:** Member Quality, Safety and Accountability Committee, RPA; Vice-Chair, Quality Insights Renal Network 4; Member, Scientific Advisory Board, NKF; Deputy Editor, CJASN; Editor, Renal Failure; **Other:** Editorial Board, UpToDate.
Biff Palmer—Employer: University of Texas Southwestern Medical Center.

Mark Perazella—Employer: Yale University School of Medicine; Honoraria: ASN; Scientific Advisor/Membership: CJASN-AE Clinical Nephrology; Clinical Nephrology- AKI Series Editor; AJKD- Core Curriculum Series; KI- Editorial Board.

Jai Radhakrishnan—Employer: Columbia University Medical Center; Consultancy: Merck: Advisory Board, Eli Lilly Consulting; Research Funding: Otsuka, Sanofi, Retrophin; Honoraria: Salix, Genentech, Boehringer-Ingelheim, UpToDate, Relypsa; Scientific Advisor/Membership: Kidney International Reports: Editor-in-Chief, Kidney International: Associate Editor, ISN: Education Committee, Publications Committee.

Robert Reilly—Employer: VA North Texas Health Care System, UT Southwestern Medical Center.

Mitchell Rosner—Employer: University of Virginia; Consultancy: Johnson & Johnson; Abbvie, Otsuka; Honoraria: ASN, American College of Sports Medicine; Scientific Advisor/Membership: Editorial Board of Am J Kidney Dis and CJASN; Board of Directors of RPA.

Stuart Sprague—Employer: North Shore University Health System, University of Chicago Pritzker School of Medicine; Consultancy: OPKO, Vifor, Amgen, Fresenius, Litholink Corp; Ownership Interest: Individually owned stocks Apple, IBM, NxStage, Walgreens, First Australia Fund, Coca Cola, Paycheck; Research Funding: Amgen, Shire, Vifor, Satellite HealthCare, Deltanoid, NPS; Honoraria: Amgen, Vifor, Fresenius; Scientific Advisor/Membership: KI- Editorial Board.

Theodore Steinman—Employer: Beth Israel Deaconess Medical Center, Harvard Medical School; Consultancy: Genzyme-Sanofi, Kadmon, Relypsa, Fibrogen; Research Funding: Kadmon, Fibrogen; Honoraria: Relypsa, Genzyme-Sanofi; Scientific Advisor/Membership: Genzyme-Sanofi.


Stephen Textor—Employer: Mayo Clinic; Consultancy: UpToDate (Section Editor).

Ravi Thadhani—Employer: Massachusetts General Hospital & Partners Healthcare; Consultancy: Fresenius Medical Care North America, Celgene, Deltanoid, Thermo Fisher; Ownership Interest: Aggamin LLC; Research Funding: NIH, Kaneka Corporation, EMD Serono; Honoraria: ThermoFisher, Roche Diagnostics, Pfizer, Celgene, Sideris; Patents/Inventions: Thermofisher, UpToDate; Scientific Advisor/Membership: Aggamin LLC.

Ashita Tolwani—Employer: University of Alabama at Birmingham; Consultancy: Baxter-Gambro; Patents/Inventions: patent on 0.5% trisodium citrate solution for CRRT anticoagulation, license has been bought by Baxter-Gambro; Scientific Advisor/Membership: CJASN Editorial Board Member, BMC Nephrology Editorial Board.

Raymond Townsend—Employer: University of Pennsylvania School of Medicine; Consultancy: Novartis, Medtronic, Janssen, AXIO; Research Funding: NIH; Scientific Advisor/Membership: Medtronic, Relypsa, Jannsen.

Myles Wolf—Employer: Northwestern University; Consultancy: Ardelyx, Diasorin, Keryx, Pfizer, Relypsa, Ultragenyx, ZS; Honoraria: Amgen, Lilly; Scientific Advisor/Membership: Pfizer.

The following ASN staff do not have anything to disclose:
Charyl Delaney, Alisha Graham, Jin Soo Kim, Ellen Mackall, Kara Page

All disclosure information as of 02/17/2016.

View the full ASN Conflict of Interest and Disclosure Policy.
Hardware/Software Requirements

Computers
Electronic devices running Windows and Mac OS machines are supported.

System Requirements

Mobile Viewing Requirements

<table>
<thead>
<tr>
<th>Android Devices</th>
<th>Android 2.3+ with Adobe Flash Player 10.2 or better installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Devices</td>
<td>iOS 4+</td>
</tr>
</tbody>
</table>

Online Viewing Requirements

<table>
<thead>
<tr>
<th>Bandwidth</th>
<th>512kbps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Hardware and Software</td>
<td>Screen resolution of 1024X768 or larger</td>
</tr>
<tr>
<td></td>
<td>Sound card and speakers/headphones</td>
</tr>
<tr>
<td>Browser</td>
<td>Microsoft Internet Explorer 7.0 or better</td>
</tr>
<tr>
<td></td>
<td>Mozilla Firefox 4 or better</td>
</tr>
<tr>
<td></td>
<td>Safari 5 or better</td>
</tr>
<tr>
<td>Windows</td>
<td>Operating System: Windows 8; Windows Vista; Windows XP Service Pack 2 or 3</td>
</tr>
<tr>
<td></td>
<td>X86 or x64 (Browsers must be in 32-bit mode) 1.6-gigahertz (GHz) or higher</td>
</tr>
<tr>
<td></td>
<td>processor</td>
</tr>
<tr>
<td>Mac OS</td>
<td>Operating System: Apple Mac OS X 10.4.8 or above</td>
</tr>
<tr>
<td></td>
<td>Intel Core™ Duo 1.83GHz or faster processor</td>
</tr>
<tr>
<td></td>
<td>512MB of RAM</td>
</tr>
</tbody>
</table>

Please be sure you are able to play MP3s on your computer.

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Contact Information
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