



Acute Liver Failure: Science and Practice



Acute Liver Failure: Science and Practice

May 16 - 17, 2022

UT Southwestern Medical Center

Department of Internal Medicine, Division of Gastroenterology and Hepatology

Dallas, TX

(RP2205B)

Course Directors

William M. Lee, M.D.

Meredith Mosle Chair in Liver Disease in Honor of Dr.

William M. Lee

Professor of Internal Medicine

UT Southwestern Medical Center

Brendan McGuire, M.D.

Medical Director of Liver Transplant

Professor

The University of Alabama at Birmingham

Purpose and Content

Acute liver failure (ALF) is a rare but devastating condition that arises from diverse etiologies, has a high mortality and requires high resource utilization including transplantation. The Acute Liver Failure Study Group (ALFSG) has been funded by the National Institutes of Health (NIDDK) since 1997 to collect detailed clinical data on more than 3,500 ALF patients and closed its registry, database and bio-repository permanently in 2019. This is an opportune time to take stock, consider where the field of study of liver failure is going, what has been accomplished and to determine future directions of research in this unique syndrome. The audience would include basic scientists that work on liver injury as well as clinicians (hepatologists, surgeons) who care for these very ill patients.

This two-day program will provide a comprehensive review of all aspects of the pathogenesis and treatment of ALF including possible future therapies. The initial day of the meeting will be devoted to presenting work pertaining to pathogenesis, epidemiology and patient evaluation. The second day of the meeting will be devoted to reviewing further aspects of disease management: ICU management, treatment and consideration of prognosis, liver transplantation and liver support devices.

Target Audience

This activity is intended for providers and researchers in the specialties of:

- Gastroenterology and Hepatology
- Critical Care Medicine
- Surgery
- Anesthesiology

Educational Objectives

Upon completion of this activity, participants should be able to:

- Describe the differences between liver injury from acetaminophen (APAP) vs. other drugs.
- Restate the role of cytokines in relation to injury evolution
- Explain basic factors that promote liver regeneration.
- Discuss different mechanisms of liver injury and the role of genomics in susceptibility to acute liver failure.
- Describe the current state of genome wide association studies.
- Review current state of identification of single nucleotide polymorphisms (SNPs) for specific diseases/drug injuries
- Review the elements of the basic and advanced work-ups for ALF patients.
- Identify natural history, differences in presentation, and how etiology drives prognosis and transplant decisions.
- Describe the circulatory and neurological physiology of ALF.
- Explain new understanding regarding hemostasis in ALF, management of kidney injury and hemostasis
- Compare present treatment modalities and propose possible future management protocols.
- Contrast the differences in presentation and outcome of different etiologies.
- Relate how etiology drives prognosis and transplant decisions.
- Envision novel approaches to managing ALF in the future.
- Describe current issues surrounding liver support devices.

Educational Methods

Lectures, Slide Presentations, and Question and Answer Sessions.

Accreditation and Credit Designation Statements

The University of Texas Southwestern Medical Center at Dallas is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The University of Texas Southwestern Medical Center designates this live activity for a maximum of **10.25 AMA PRA Category 1 Credit(s)™**. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The University of Texas Southwestern Medical Center certifies that non-physicians will receive an attendance certificate stating that they participated in the activity that was designated for **10.25 AMA PRA Category 1 Credit(s)™**.

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DISCLAIMER

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Evaluation

Evaluation by questionnaire will address program content, presentation, and possible bias.

Course Faculty

Udayan Apte, PhD, DABT, FAASLD

Professor, Department of Pharmacology, Toxicology, and Therapeutics
University of Kansas Medical Center

Nathan (Tony) M. Bass, MB, ChB, PhD, FACP, FAASLD

Professor Emeritus, Department of Medicine
University of California, San Francisco

Charles Chiu, M.D., Ph.D.

Professor, Department of Laboratory Medicine and Medicine
University of California, San Francisco

Lily Dara M.D.

Assistant Professor of Medicine
University of Southern California

Robert J. Fontana, M.D.

Professor of Medicine
University of Michigan Medical Center

Daniel R. Ganger, M.D.

Professor of Medicine and Surgery
Feinberg School of Medicine, Northwestern University

Sanjeev Gupta, M.D.

Professor of Medicine and Pathology, The Eleazar and Feige Reicher Chair in Translational Medicine
Albert Einstein College of Medicine

Bilal Hameed, M.D.

Professor of Medicine
University of California San Francisco

Laura James, M.D.

Director, Translational Research Institute
University of Arkansas for Medical Sciences

Emmanuelle Jouanguy, Ph.D.

Human Genetics of Infectious Diseases
Directeur de Recherche - INSERM

Constantine J Karvellas M.D., SM, FRCPC, FCCM

Professor of Medicine, Department of Critical Care Medicine
University of Alberta

David E. Kleiner, M.D., Ph.D.

Senior Research Physician
Center for Cancer Research/NCI

David G Koch, M.D., MSCR

Associate Professor of Medicine, Division of Gastroenterology and Hepatology
Medical University of South Carolina

Anne M Larson M.D.

Clinical Professor of Medicine
UW NW Hepatology / UW Medicine

Iris Liou, M.D.

Clinical Associate Professor, Department of Medicine
University of Washington

Paola Nicoletti, M.D.

Assistant Professor
Icahn School of Medicine at Mount Sinai

Scott Nyberg, M.D., Ph.D.

Consultant, Division of Transplantation Surgery, Department of Surgery
Mayo Clinic

Babak J. Orandi, M.D., Ph.D., MSc, FACS, DABOM

Assistant Professor of Surgery, Surgical Director of Pediatric Liver Transplantation
University of Alabama at Birmingham

Jorge L. Rakela, M.D., MACP, FAASLD, AGAF, FACG

Professor of Medicine
Mayo Clinic Alix School of Medicine

K. Rajender Reddy, M.D.

Founders Professor of Medicine, Director of Hepatology
University of Pennsylvania

Adrian Reuben MBBS, FRCP, FACG, FAASLD, AGAF

Professor Emeritus
Medical University of South Carolina

Christopher F. Rose, Ph.D.

Professor, Dept. Medicine
Université de Montréal

James E. Squires, M.D., MS

Associate Director of Hepatology
UPMC Children's Hospital of Pittsburgh

R. Todd Stravitz, M.D., FAASLD

Professor of Medicine
Virginia Commonwealth University

Evangelos Triantafyllou, Ph.D.

Advanced Research Fellow, Liver Immunology
Imperial College London

Russell N. Wesson, MBChB

Assistant Professor of Surgery, Division of Transplantation
Johns Hopkins Hospital

Lars Zender, M.D.

Professor of Medical Oncology, Director and Chairman
Dept. of Medical Oncology & Pneumology
University of Tübingen

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Bilal Hameed, M.D.	Moderator	Grant or Contract Independent Contractor Stock Options	Gilead Intercept Genfit Pliant Novo Nordisk CymaBay Mallinckrodt PleioGenix Gilead Pioneering Medicine VII, Inc PleioGenix
David G Koch, M.D., MSCR	Speaker	Professional Services	Blue Sky Specialty Pharmacy
William M. Lee, M.D.	Course Director, Moderator, Speaker	Grant or Contract Independent Contractor	Merck Intercept Conatus Novo Nordisk IL Alexion Eiger Gilead Genentech Forma Pharmaceuticals Seattle Genetics Karuna Cortexyme

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K. Rajender Reddy, M.D.	Speaker	Grant or Contract Independent Contractor	Mallinckrodt Exact Sciences Gilead Merck Intercept BMS Grifols Sequana Biovie Mallinckrodt Novo Nordisk Spark Therapeutics Genfit Novartis
Christopher F. Rose, Ph.D.	Speaker	Grant or Contract	Horizon Lupin Neuractas Morphocell Aza Technologies Mallinckrodt River Stone Axcella
Lars Zender, M.D.	Speaker	Financial Stake	HepaRegenix

Acknowledgements

Exhibitors

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Alexion, AstraZeneca Rare Disease

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GENERAL INFORMATION

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Online course evaluations will be available 3-5 business days after the conference. The evaluation is an important tool for assessing the effectiveness of this activity as well as for planning future activities. We value your feedback.

CME and Attendance Certificates will be available online at <http://cme.utsouthwestern.edu> after completion of the online evaluation. An account must be created at cme.utsouthwestern.edu in order to claim/view credit. Instructions are available upon request for creating this profile.

If you have any questions regarding your certificate you may direct them to: cmeregistrations@utsouthwestern.edu

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Mobile Phones/Pagers

As a courtesy to the speakers and your fellow participants, please silence all mobile phones/pagers during this continuing education activity.

AGENDA**Acute Liver Failure: Science and Practice, a symposium.****Monday May 16, 2022****Session 1: Acute Liver Failure: Overview and Mechanisms of Liver Injury**

Moderators: Brendan McGuire, MD (UAB) and William M. Lee, MD (UTSW)

Time	Presentation Title	Speaker
8:00 - 8:05 am	Welcome to UTSW from the University President	Daniel Podolsky, MD
8:05 - 8:10 am	Introduction to the Meeting	Brendan McGuire, MD
8:10 - 8:35 am	Acute Liver Failure and ALFSG	William M. Lee, MD
8:35 - 9:00 am	Mechanisms of Liver Injury	Lily Dara, MD
9:00 - 9:20 am	Clinical Phenotypes of ALF	Raj Reddy, MD
9:20 - 9:40 am	Acetaminophen Liver Injury: Current status	Laura James, MD, PhD
	* This presentation is not approved for AMA PRA Category 1™ credit	
9:40 - 10:00 am	Histopathology of ALF	David Kleiner, MD
10:00 - 10:15 am	Discussion	

Break**Session 2: Liver Regeneration and Response to Injury**

Moderators: Adrian Reuben, MD (MUSC) and David Kleiner, MD (NCI)

Time	Presentation Title	Speaker
10:30 - 10:50 am	Overview of Basic Regenerative	Sanjeev Gupta, MD
10:50 - 11:15 am	Immunologic Basis of Liver Injury/Response	Evangelos Triantafyllou
11:15 - 11:35 am	Wnt Signaling and Regeneration	Udayan Apte, PhD
11:35 - 11:55 pm	Pathophysiology of cerebral edema	Chris Rose, PhD
11:55 - 12:15 pm	Discussion	

Lunch Break – Visit Posters

Session 3: Genomics and Viral Discovery

Moderators: Jorge Rakela, MD (Mayo Clinic) and Tony Bass, MD (UCSF)

Time	Presentation Title	Speaker
1:10 - 1:30 pm	Viral Discovery in ALF	Charles Chiu, MD
1:30 - 1:50 pm	Genomics and Viral Liver Injury	Emmanuel Jouanguy, MD
1:50 - 2:10 pm	Genomics of Drug-Induced Liver Injury * This presentation is not approved for <i>AMA PRA Category 1™ credit</i>	Paola Nicoletti, PhD
2:10 - 2:30 pm	Biomarkers in ALF	Jorge Rakela, MD
2:30 - 2:45 pm	Discussion	

Break**Session 4: Diagnosis, Evaluation and Prognosis of ALF**

Moderators: Bob Fontana, MD (Michigan) and Dan Ganger, MD (Northwestern)

Time	Presentation Title	Speaker
3:00 - 3:20 pm	Natural History of ALF	Adrian Reuben, MBBS
3:20 - 3:40 pm	Causality: Determining Etiology in ALF	Daniel Ganger, MD
3:40 - 4:10 pm	Prognostic Indices: Determining Outcomes	David Koch, MD
4:10 - 4:30 pm	Methacetin Breath Test/Other Prognostic Tools	Robert J. Fontana, MD
4:30 - 4:50 pm	Discussion	

Tuesday May 17, 2022

Session 5: Complications of ALF: Riding Out the Storm

Moderators: Iris Liou, MD (Univ. of Washington) and Bilal Hameed, MD (UCSF)

Time	Presentation Title	Speaker
8:00 - 8:30 am	Critical Care of ALF: Overview	Dean Karvellas, MD
8:30 - 8:50 am	Hemostasis in ALF: Is There a Coagulopathy?	Todd Stravitz, MD
8:50 - 9:10 am	The Decision to List for Transplant	Shannan Tujios, MD
9:10 - 9:30 am	Outcomes of Transplantation: SRTR/ALFSG	Dean Karvellas, MD
9:30 - 9:45 am	Discussion	

Break

Session 6: Liver Support, Transplantation and The Future

Moderator: Anne Larson, MD (Univ. of Washington) and William M. Lee, MD (UTSW)

Time	Presentation Title	Speaker
10:00 - 10:20 am	Liver support machines: Current status	Scott Nyberg, MD
10:20 - 10:40 am	Clinical trial of biologics for liver regeneration	Russell Wesson, MD
10:40 - 11:00 am	Pediatric ALF: Current Status	Jim Squires, MD
11:00 - 11:20 am	Is ALF Going Away? An Epidemiologist's View	Babak Orandi, MD
11:20 - 11:40 am	New agents for liver recovery	Lars Zender, MD
11:40 - 11:55 am	Discussion	
11:55 - 12:00 pm	Final Words	William M. Lee, MD

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