Brilliant Violet™
Antibody Conjugates

Brilliant Violet 421™, superior to Pacific Blue™, BD Horizon™ V450

Novel Violet Laser Fluorochrome Conjugates

- >10X Brighter than Pacific Blue™
- No special buffers required
- Stable to Fixation

Brilliant Violet 421™ is the first in a series of polymer-based fluorochromes, developed from Nobel Prize-winning chemistry that will revolutionize flow cytometry. With a dramatically improved signal-to-noise ratio, Brilliant Violet 421™ can increase assay sensitivity by logarithmic orders of magnitude without increasing background or spill-over, making it ideal for detecting rare cell populations and weakly expressed cell markers.

Stain Index

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<th>Specificity</th>
<th>Fluorochrome</th>
<th>Laser Excitation</th>
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<td>CD3/UCHT1</td>
<td>Brilliant Violet 421™</td>
<td>405 nm</td>
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<tr>
<td>CD3/UCHT1</td>
<td>PE</td>
<td>561 nm</td>
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<td>CD3/UCHT1</td>
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<td>CD3/UCHT1</td>
<td>BD Horizon™ V450</td>
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RBC-lysed whole blood cells were stained with anti-CD3 conjugated to the above fluorochromes and run on the BD™ LSR II flow cytometer. The stain index values indicated are derived at the optimal concentration for each conjugate.

Visit us at biolegend.com for more information about Brilliant Violet 421™ antibodies.

5068-0005-10
Don’t miss the most comprehensive introduction to immunology available!

This intensive two-part course, taught by world-renowned immunologists, provides a comprehensive overview of the basics of immunology. This course is for students new to the discipline or those seeking more information to complement general biology or science training. **Part I (July 9 – 11)** is a detailed introduction to the basic principles of immunology and is suitable for students with a general biology background. **Part II (July 12 – 14)** is a clinically oriented lecture series focusing on specialty areas. Parts I and II may be taken independently at the discretion of the student.

**Faculty**

- **Christopher A. Hunter**, University of Pennsylvania School of Veterinary Medicine  
  *Introduction to the Immune System*
- **Sara Cherry**, University of Pennsylvania School of Medicine  
  *Introduction to Innate Immunity*
- **Judith A. Owen**, Haverford College  
  *Introduction to Adaptive Immunity*
- **Michael P. Cancro**, University of Pennsylvania School of Medicine  
  *Clonal Selection and V(D)J Recombination (B Cell Centric)*
- **David M. Allman**, University of Pennsylvania School of Medicine  
  *B Cell Activation and Memory Formation*
- **Terri M. Laufer**, University of Pennsylvania School of Medicine  
  *MHC Restriction and Thymic Selection*
- **Laurence C. Eisenlohr**, Jefferson Medical College  
  *Antigen Processing and Presentation*
- **Julie M. Blander**, Mount Sinai School of Medicine  
  *Dendritic Cells: The Bridge Between Innate and Adaptive Immunity*
- **Gary A. Koretzky**, University of Pennsylvania School of Medicine  
  *Signaling in the Immune System*
- **Gudrun Philomena Fiona Debes**, University of Pennsylvania School of Veterinary Medicine  
  *Trafficking*
- **Michael P. Cancro**, University of Pennsylvania School of Medicine  
  *Lymphocyte Homeostasis*
- **Ronald N. Germain**, NIAID, NIH  
  *Cytokines*
- **Robert A. Seder**, VRC, NIAID, NIH  
  *Immunizations*
- **Andrey B. Aksenov**, University of Pennsylvania School of Veterinary Medicine  
  *Immunology to Bacterial Pathogens*
- **Andrew J. Caton**, The Wistar Institute  
  *T and B Cell Tolerance*
- **Robert H. Vonderheide**, University of Pennsylvania School of Medicine  
  *Tumor Immunology*
- **Betty A. Diamond**, The Feinstein Institute for Medical Research  
  *Autoimmunity*
- **Cathryn Nagler**, University of Chicago  
  *Mucosal Immunology*
- **Achsa D. Keegan**, University of Maryland School of Medicine  
  *Type 2 Immune Responses and Asthma*
- **Padmini Salgame**, University of Medicine and Dentistry of New Jersey  
  *Immunity to Bacterial Pathogens*
- **E. John Wherry**, University of Pennsylvania School of Medicine  
  *Immunologic Memory to Intracellular Pathogens*
- **Christopher A. Hunter**, University of Pennsylvania School of Veterinary Medicine  
  *Cytokines*
- **Robert A. Seder**, VRC, NIAID, NIH  
  *Immunizations*
- **Jordan S. Orange**, Children’s Hospital of Philadelphia  
  *Primary Immunodeficiencies*
- **Jonathan S. Maltzman**, University of Pennsylvania School of Medicine  
  *Transplantation*
- **Judy H. Cho**, Yale School of Medicine  
  *Genetic Approaches to Immune-Mediated Diseases*
- **John G. Monroe**, Genentech, Inc.  
  *Bench to Bedside to Bench: Current Issues in Immunology*

For complete course details and registration, visit [www.aai.org/Courses.htm](http://www.aai.org/Courses.htm). For assistance, contact Clayton Moore at (301) 634-7399 or meetings@aai.org. Overseas applicants are advised to apply early for visas; for details, visit [www.aai.org/Courses/visainformation.htm](http://www.aai.org/Courses/visainformation.htm). Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit [http://marc.faseb.org](http://marc.faseb.org).
The American Association of Immunologists

2011 Advanced Course in Immunology

July 31 - August 5, 2011

University of Minnesota, Minneapolis

Course Director: Stephen C. Jameson, Ph.D.
Center for Immunology, University of Minnesota Medical School

Course Co-Director: Michael A. Farrar, Ph.D.
Center for Immunology, University of Minnesota Medical School

Don’t miss the premier course in immunology for research scientists!

This intensive course is directed toward advanced trainees and scientists who wish to expand or update their understanding of the field. Leading experts will present recent advances in the biology of the immune system and address its role in health and disease. This is not an introductory course; attendees will need to have a firm understanding of the principles of immunology.

Faculty

- Marc K. Jenkins, Center for Immunology
  University of Minnesota Medical School
  Anatomy of the Immune Response

- Jenny P-Y. Ting, University of North Carolina, Chapel Hill
  Molecule Recognition Motifs

- Jeffrey S. Miller, Masonic Cancer Center
  University of Minnesota Medical School
  NK Cells - Their Receptors and Function in Health and Disease

- Erik J. Peterson, Center for Immunology
  University of Minnesota Medical School
  Molecular and Cellular Mediators of Inflammation

- Daniel Kaplan, Center for Immunology
  University of Minnesota Medical School
  Dendritic Cells

- Barry P. Sleckman, Washington University
  School of Medicine
  The Generation and Modification of Lymphocyte Antigen Receptor Genes

- Michael A. Farrar, Center for Immunology
  University of Minnesota Medical School
  B Cell Development

- Kristin A. Hogquist, Center for Immunology
  University of Minnesota Medical School
  T Cell Development

- Yoji Shimizu, Center for Immunology
  University of Minnesota Medical School
  Lymphocyte Trafficking

- Lisa K. Denzin, Memorial Sloan-Kettering Cancer Center
  MHC-Restricted Antigen Presentation to T Cells

- Stephen C. Jameson, Center for Immunology, University of Minnesota Medical School
  Lymphocyte Memory

- Daniel D. Billadeau, Mayo Clinic Medical School
  Signaling from Antigen Receptors

- David Masopust, Center for Immunology
  University of Minnesota Medical School
  Mucosal Immunity

- Steven M. Varga, University of Iowa
  Immune Response to Pathogens

- Bryce A. Binstadt, Center for Immunology
  University of Minnesota Medical School
  T and B Cell Tolerance and Autoimmunity

- William J. Burlingham, University of Wisconsin, Madison
  Immunobiology of Transplantation

- Hirohito Kita, Mayo Clinic Medical School
  Asthma and Allergy

- Joanne L. Viney, Amgen, Inc.
  Immunotherapeutics

- Robert Schreiber, Washington University
  School of Medicine
  Tumor Immunology

For complete course details and registration, visit [www.aai.org/Courses.htm](http://www.aai.org/Courses.htm). For assistance, contact Clayton Moore at (301) 634-7399 or meetings@aai.org. Overseas applicants are advised to apply early for visas; for details, visit [www.aai.org/Courses/visainformation.htm](http://www.aai.org/Courses/visainformation.htm). Financial support for underrepresented minority scientists is available through the FASEB MARC Program; for details, visit [http://marc.faseb.org](http://marc.faseb.org).
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MAY 13 – 17, 2011 • SAN FRANCISCO, CALIFORNIA

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Support for this award is generously provided through an endowment from eBioscience, Inc.

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Division of Infectious Diseases
Department of Pediatrics
University of Pittsburgh School of Medicine

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Dartmouth Medical School

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Clinical Fellow
Division of Allergy and Immunology
Cincinnati Children’s Hospital Medical Center

Braedon McDonald
Graduate Student
Immunology Program
University of Calgary

Jeffrey Mold, Ph.D.
Postdoctoral Fellow
Division of Experimental Medicine
Department of Immunology
University of California, San Francisco

Mouth Rafei, Ph.D.
Postdoctoral Investigator
Immunobiology Laboratory
The Institute for Research in Immunology and Cancer
Université de Montréal

Vijay A. K. Rathinam, D.V.M., Ph.D.
Postdoctoral Fellow
Division of Infectious Diseases and Immunology
University of Massachusetts Medical School