

CURRICULUM VITAE

MARIA A. PROYTCHIEVA, M.D.

Professor of Pathology and Pediatrics
Vice Chair for Laboratory Medicine
Department of Pathology
University of Arizona College of Medicine

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M. Proytcheva
07/08/2022

CHRONOLOGY OF EDUCATION

- 10/77 – 09/83 Medical Student at the Higher Medical University, The Medical University, Sofia Bulgaria (M.D.)
- 07/97 – 06/98 Pathology Resident, Combined Anatomic & Clinical Pathology, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY
- 07/98 – 06/01 Chief Resident, Combined Anatomic & Clinical Pathology, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY
- 07/01 – 06/02 Hematopathology Fellow, Weill Medical College at Cornell University, New York Presbyterian Hospital, New York, NY
- 07/02 – 06/03 Blood Bank/Transfusion Medicine/ Apheresis Fellow, Yale University School of Medicine, New Haven, CT

BOARD CERTIFICATIONS

- 07/02 – American Board of Pathology, Pathology – Anatomic & Clinical (primary)
- 10/02 – American Board of Pathology, Hematology (subspecialty)
- 09/03 – American Board of Pathology, Blood Bank/Transfusion Medicine, (subspecialty)

MEDICAL LICENSURE

- 10/11 – Arizona Medical Board #45432

08/30/2021

CHRONOLOGY OF EMPLOYMENT

11/83 – 10/84 Attending Pediatrician, Elhovo District Hospital, Elhovo, Bulgaria

10/84 – 10/86 Attending Pediatrician, Hospital of the Mother & Child, Stara Zagora, Bulgaria

07/86 – 10/91 Research Scientist III
Director, Clinical Microbiology Laboratory, Transport Medical Institute, Sofia, Bulgaria

11/91 – 11/93 Research Technician, Laboratory of Human Genetics, New York Blood Center, New York, NY

11/93 – 06/97 Senior Research Fellow, Laboratory of Human Genetics, New York Blood Center, New York, NY

07/97 – 06/99 Pathology Resident, Anatomic Pathology, Department of Pathology, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY

07/99 – 06/01 Chief Resident, Clinical Pathology, Department of Pathology, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY

07/01 – 06/02 Hematopathology Fellow, Department of Pathology, New York Presbyterian Hospital, Weil Cornell Medical College, New York, NY

07/02 – 06/03 Blood Bank/Transfusion Medicine Fellow, Department of Laboratory Medicine, Yale New Haven Hospital, Yale University, New Haven, CT

07/03 – 08/11 Assistant Professor, Northwestern University, Chicago, IL
Director, Hematology Laboratories, Children's Memorial Hospital, Chicago, IL

09/11 – 02/12 Associate Professor, Northwestern University, Chicago, IL
Director, Hematology Laboratories, Children's Memorial Hospital, Chicago, IL

03/12-12/15 University of Arizona College of Medicine
Division Chief, Clinical Pathology
Medical Director, Laboratory, Banner University Medical Center, Tucson, AZ

03/12 – 06/16 Associate Professor, University of Arizona
Division Chief, Clinical Pathology
Medical Director, Laboratory, Banner University Medical Center, Tucson, AZ

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- 01/16- Present Banner University Medical Center, Tucson, AZ
Division Chief, Clinical Pathology
Medical Director, Laboratory, Banner University Medical Center,
Tucson, AZ
- 07/16 – Present Professor of Pathology, University of Arizona
Division Chief, Clinical Pathology
Medical Director, Laboratory, Banner University Medical Center,
Tucson, AZ
- 04/19 – Present Professor of Pediatrics, University of Arizona
Division of Hematology Oncology, Department of Internal Medicine
Tucson, AZ
- 07/21 - Present Vice Chair for Laboratory Medicine
Department of Pathology
UA College of Medicine – Tucson
Tucson, AZ

AWARDS AND HONORS

- 06/2001 Outstanding Achievement in the Teaching of Medical Students – *Leo M. Davidoff Society of the Albert Einstein College of Medicine of Yeshiva University*
- 03/2015 Banner-University Medical Group – *Endless Possibilities Award, 2015*
- 06/14 – 08/15 Guest Editor, Special Pediatric Hematopathology Issue of the Journal of Hematopathology
- 05/14 – 05/15 Guest Editor, International Journal of Laboratory Hematology, 2015 Annual Meeting Educational Proceedings
- 2016-2017 The John R. Davis, MD Outstanding Residency Teaching Award, University of Arizona College of Medicine, Department of Pathology

PROFESSIONAL SOCIETY MEMBERSHIPS

- 1993 – 2002 American Society of Human Genetics
1997 – 2003 American Society of Clinical Pathology
1997 – College of American Pathology
2001 – American Society of Hematology
2002 – American Association of Blood Banks
2003 – Society for Hematopathology
2005 – United States and Canadian Academy of Pathology
2005 – International Society for Laboratory Hematology
2016 – Academy of Clinical Laboratory Physicians and Scientists

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COMMITTEE SERVICE

2012 – Chair, Clinical Pathology Faculty Meeting

2012 – Chair, Department of Pathology Quality Improvement Committee

2012 – Member, Residency Committee

2012 – 2013 Chair, Search Committee for the Division Chief, Clinical and Molecular Microbiology

2012 – Member, Department of Pathology Executive Committee

2012 – 2014 Member, UAHN Medical IT Committee

2012 – 2015 Member, Joint Departmental Quality Council

2016 – Member, Process Improvement Council

2012 – 2013 Member, UAHN Epic, Clinical Preparedness Committee

2013 – 2014 Member, UAHN IT Steering Council, Member

2015 – Member, BUMCT&S Epic Clinical Advisory Committee, Member

2013 – 2014 Member, COM Search Committee for the Head, Department of Surgery

2015 –2017 Member, BUMCT&S/LSA/SQL Integration Steering Committee

2015- 2016 Member, COM Community Outreach Workgroup

2015-2016 Member, College of Medicine UA Vitae Clinical Faculty Advisory Committee

08/2015-2017 Chair, Search Committee for the Division Chief, Blood Bank/Transfusion Medicine

5/2016- 2017 Chair, Search Committee for the Division Chief, Clinical and Molecular Microbiology

07/2017-2021 Member, Dean’s Council for Faculty Affairs (4-year term)
UA College of Medicine, Tucson,

2017- 2018 Member, Academic Technology Advisory Group
UA College of Medicine, Tucson,

2020- Member, Pathology and Laboratory Medicine Clinical Consensus Group
LSA/SQL

07/07/2022

PROFESSIONAL and SCIENTIFIC SERVICE

- 11/05 – 11/2010 Board Member, National Advisory Committee; Children's Health Improvement through Laboratory Diagnosis, CHILDX
- 04/2007 – Member, Editorial Board
International Journal of Laboratory Hematology
- 06/2008 – 05/2014 Member, Nominating Committee
International Society for Laboratory Hematology
- 05/2010 – 10/2013 Representative of the International Society for Laboratory Hematology at the International Council for Standardization in Hematology
- 05/2012 – 05/2018 Board, Member
International Society for Laboratory Hematology
- 05/2012 – 10/2017 Board, Vice Chair
International Council for Standardization in Hematology (ICSH)
- 05/2012 – 10/2017 College of American Pathologists Hematology and Clinical Microscopy Resource Committee, ICSH Liaison
- 06/2014 – 12/2015 Member, Image Bank Task Force, American Society of Hematology
- 01/2014 – 12/2015 Member, Scientific Committee on Hematopathology and Clinical Laboratory Hematology, American Society of Hematology
- 01/2016 – 12/2016 Vice Chair, Scientific Committee on Hematopathology and Clinical Laboratory Hematology, American Society of Hematology
- 01/2017 – 12/2017 Chair, Scientific Committee on Hematopathology and Clinical Laboratory Hematology, American Society of Hematology

SCHOLARLY BIBLIOGRAPHY

Original, peer-reviewed research articles

1. Ellis NA, Roe AM, Kozloski J, **Proytcheva M**, Falk C, German J. Linkage disequilibrium between the *FES*, *D15S127*, and *BLM* loci in Ashkenazi Jews with Bloom's syndrome. *Amer J Hum Genet* 55:450-460, 1994 PMID: 8079989
2. Ellis NA, Lennon DJ, **Proytcheva M**, Alhadeff B, Henderson EE, German J. Somatic intragenic recombination within the mutated locus *BLM* can correct the high-SCE phenotype of Bloom syndrome cells. *Amer J Hum Genet* 57:1019-1027, 1995 PMID: 7485150

3. Ellis NA, Groden J, Ye T-Z, Straughen J, Lennon DJ, Ciocci S, **Proytcheva M**, German J. The Bloom's syndrome gene product is homologous to RecQ helicases. *Cell* 83:655-666, 1995 PMID: 7585968
4. German J, Ellis NA, **Proytcheva M**. Bloom's syndrome. XIX. Cytogenetic and population evidence for genetic heterogeneity. *Clinical Genetics* 49: 223-231, 1996 PMID: 8832129
5. Straughen J, Ciocci S, Ye T-Z, Lennon DJ, Alhadeff B, **Proytcheva M**, Goodfellow P, German J, Ellis N A, Groden J. Physical mapping of the Bloom's syndrome region by the identification of YAC and P1 clones from human chromosome 15 band q26.1. *Genomics* 35, 118-128, 1996 PMID: 8661112
6. Straughen JE, Johnson J, McLaren D, **Proytcheva M**, Ellis N, German J, Groden J. A rapid method for detecting the predominant Ashkenazi Jewish mutation in the Bloom's syndrome gene. *Human Mutation* 11:175-178, 1998 PMID: 9482582
7. Ellis N, Ciocci S, **Proytcheva M**, Lennon D, Groden J, German J. The Ashkenazic Jewish Bloom syndrome mutation *blm*^{Ash} is present in non-Jewish Americans of Spanish ancestry. *Amer J Hum Genet* 63: 1685-1693, 1998 PMID: 9837821
8. Neff NF, Ellis N, Ye T-Z, Noonan J, Huang K, Sanz M, **Proytcheva M**. The DNA helicase activity of the BLM is necessary for the correction of the genomic instability for Bloom syndrome cells. *Mol Biol Cell* 10:665-676, 1999 PMID: 10069810
9. Ellis NA, **Proytcheva M**, Sanz M, Ye T-Z, German J. Transfection of *BLM* into cultured Bloom syndrome cells reduces the SCE rate toward normal. *Amer J Hum Genet* 65:1368-1374, 1999 PMID: 10521302
10. Sanz MM, **Proytcheva M**, Ellis NA, Holloman WK, German JL. BLM, the Bloom's syndrome protein, varies during the cell cycle in its amount, distribution, and co-localization with other nuclear proteins. *Cytogenet Cell Genet* 91:217-223, 2000 PMID: 11173860
11. Tabaee A, Zadeh MH, **Proytcheva M**, LaBruna A. Eosinophilic angiocentric fibrosis. Review. *J Laryngol Otol* 117:410-413, 2003 PMID: 12803796
12. Trobaugh-Lotrario A, Kletzel M, Quinones RR, McGavran L, **Proytcheva M**, Hunger SP, Malcolm J, Schissel D, Hild E, Giller RH. Monosomy 7 associated with pediatric acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS): successful management by allogeneic hematopoietic stem cell transplant (HSCT). *Bone Marrow Transplant* 35(2):143-149, 2005 PMID: 15558042
13. Pahl E, Katz BZ, Pophal SG, Crawford SE, Kostyk MC, Morgan E, **Proytcheva M**, Mavroudis C, Backer CL. Case control study of risk factors for the development of post-transplant lymphoproliferative disease in a pediatric heart transplant cohort. *Pediatric Transplantation* 11:58-65, 2007 PMID: 17239124
14. Costa da Cunha Castro E, Blazquez C, Boyd J, Correa H, de Chadarevian JP, Felgar RE, Graf N, Levy N, Lowe EJ, Manning Jr JT, **Proytcheva M**, Senger C, Shayan K, Sterba J, Werner A, Surti U, Jaffe R. Clinicopathologic features of histiocytic lesions following ALL, with a review of the literature. *Pediatr Dev Pathol* May-June13(3):225-237, 2010 PMID: 19642834

15. Ibarra MF, Klein-Gitelman M, Morgan E, **Proytcheva M**, Sullivan C, Morgan G, Pachman LM, O’Gorman MRG. Serum neopterin levels as a diagnostic marker of hemaphagocytic lymphohistiocytosis syndrome. *Clinical and Vaccine Immunology* 18:609-614, 2011 PMID: 21270283
16. Proytcheva M. Juvenile myelomonocytic leukemia. *Seminars in Diagnostic Pathology* 28:298-303, 2011 PMID: 22195407
17. Cooper DL, **Proytcheva M**, Medoff E, Seropian SE, Snyder EL, Krause DS, Wu Y. Successful collection and engraftment of autologous peripheral blood progenitor cells in poorly mobilized patients receiving high-dose granulocyte colony-stimulating factor. *J Clin Apheresis*. 27(5):235-241, 2012 PMID:22566214
18. Nelson BP, Wolniak KL, Evens A, Chenn A, Maddalozzo J, **Proytcheva M**. Early Posttransplant Lymphoproliferative Disease. *Am J Clin Pathol* October 1, 138(4):568-578, 2012 PMID: 23010712
19. Andolina JR, Morrison CB, Thompson AA, Chaudhury S, Mack, KA, **Proytcheva, M**, Corey SJ. Shwachman-Diamond Syndrome: Diarrhea, no Longer Required? *J Pediatr Hematol Oncol*. 35(6):486-489, 2013 PMID: 22935661
20. Bass LM, Barsness K, Benya E, **Proytcheva M**, Kagalwalla A. Mesenteric Castleman's Disease detected by Capsule Endoscopy. *Journal of Pediatric Gastroenterology and Nutrition* 57(1):e3-5, 2013 PMID: 22695041
21. **Proytcheva M**. Bone marrow evaluation for pediatric patients. *Int J Lab Hemato* 35(3):283-289, 2013 PMID: 23590656
22. Yoon JW, Gallant M, Lamm ML, Iannaccone S, Vieux K-F, **Proytcheva M**, Hyjek E, Iannacconi P, Walterhouse D. Noncanonical Regulation of the Hedgehog Mediator GLI1 by c-MYC in Burkitt Lymphoma. *Molecular Cancer Research* 11(6):604-615, 2013 PMID: 23525267
23. Babiker HM, **Proytcheva M**. Basophilic blast phase of chronic myelogenous leukemia. *Blood* 124:2464, 2014 PMID: 25436261
24. Palmer L, Briggs C, McFadden S, Zini G, Burthem J, Rozenberg G, **Proytcheva M**, Machin SJ. ICSH recommendations for the standardization of nomenclature and grading of peripheral blood cell morphological features. *Int J Lab Hematol* 37(3):287-303, 2015 PMID: 25728865
25. Hayward CPM, Moffat KA, George TI, **Proytcheva M**. Assembly and evaluation of an inventory of guidelines that are available to support clinical hematology laboratory practice. *Int J Lab Hematol* 37:36-45, 2015 PMID: 25976959
26. Hayward CPM, Moffat KA, George TI, **Proytcheva M**, Iorio A. Report on the International Society for Laboratory Hematology Survey on guidelines to support clinical hematology laboratory practice. *Int J Lab Hematol* 2016;38:133-8.
27. Nolte, D. A. and **M. A. Proytcheva** (2016). "Flowers blossoming in the desert heat." *Blood* 128(24): 2868-2868

28. Zeng, Y., S. Hahn, J. Stokes, E. A. Hoffman, M. Schmelz, **M. Proytcheva**, J. Chernoff and E. Katsanis (2017). "Pak2 regulates myeloid-derived suppressor cell development in mice." Blood Adv **1**(22): 1923-1933.
29. Lukefahr, A. L. and **M. Proytcheva** (2018). "Alder-Reilly Anomaly in the Cerebrospinal Fluid of a Child With Hurler Syndrome." J Pediatr Hematol Oncol **40**(1): 74-75.
30. Macaraeg, M., **M. Proytcheva** and E. Katsanis (2019). "Transfusion independence after repeated haploidentical hematopoietic cell transplants in a patient with congenital dyserythropoietic anemia type II and hemosiderosis." Pediatr Transplant: e13587.
31. Alswied, A., A. Rehman, L. W. Lai, J. Duran, M. Sardar and **M. A. Proytcheva** (2021). "Rare monosomy 7 and deletion 7p at diagnosis of chronic myeloid leukemia in accelerated phase." Cancer Genet **252-253**: 111-114.

Recent abstracts/poster presentations :

1. Anderson N, Shah A, Drake K, **Proytcheva M**, Coull B. Review of Cardiac Abnormalities with Hypercoagulable Testing in Ischemic Stroke Patients (P4.234). Neurology 82:P4.234, 2014
2. Shah A, Anderson N, Drake K, **Proytcheva M**, Coull B. Utility of Workup for Thrombophilias in a Single Center - A Qualitative Perspective (P1.125). Neurology 82:P1.125, 2014

Reviews (peer-reviewed)

Proytcheva M. Issues in neonatal cellular analysis. *Am J Clin Pathology* 131:560-573, 2009

Editorials (peer-reviewed)

Laposata M, **Proytcheva M**, Rutledge JC, Stratton CW. Professional quality assurance in laboratory medicine: What about the competency of Laboratory Directors? *Am J Clin Pathol* 134(5):706-08, 2010

Books

Proytcheva M. ed. *Diagnostic Pediatric Hematopathology*. Cambridge: Cambridge University Press, 3 February 2011.

Book Chapters

1. Mechanic SA, Krause D, **Proytcheva M**, Snyder EL. Mobilization and collection of peripheral blood progenitor cells. *In*: McLeod BC, Price TH, Weinstein RA, eds. *Apheresis : Principles and Practice* (ed 2nd). Bethesda, Md.: AABB Press; 503-530, 2003
2. **Proytcheva M.** Leukemia and lymphoma immunophenotyping and cytogenetics. *In*: O'Gorman MRG, Donnemberg AD, eds. *Handbook of human immunology* (ed 2nd): Boca Raton : CRC Press; 221-256, 2008

3. **Proytcheva M.** Hematologic values in the healthy fetus, neonate, and child. *In:* Proytcheva M ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 5-20, 2011
4. **Proytcheva M.** Normal bone marrow. *In:* Proytcheva, M ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 21-37, 2011
5. **Proytcheva M.** Inherited bone marrow failure syndromes and acquired disorders associated with single peripheral blood cytopenia: pure red cell aplasia, agranulocytosis, and thrombocytopenias. *In:* Proytcheva, M. ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 104-134, 2011
6. **Proytcheva M.** Reactive lymphadenopathies. *In:* Proytcheva, M. ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 142-181, 2011
7. **Proytcheva M.** Effect of chemotherapy, detection of minimal residual disease, and hematopoietic stem cell transplantation. *In:* Proytcheva M. ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 357-378, 2011
8. **Proytcheva M.** Pediatric small blue cell tumors metastatic to the bone marrow. *In:* Proytcheva M. ed, *Diagnostic Pediatric Hematopathology*, Cambridge: Cambridge University Press, 379-394, 2011

Commentaries (invited)

Proytcheva M. Standards needed to determine critical value ranges for neonates. *ASCP, Critical Values*, (1), page 39, 2008

INVITED LECTURES, SYMPOSIA, VISITING PROFESSORSHIP

- | | |
|----------|---|
| 05/21/20 | People's Lab Medicine Grand Rounds Program Co-Director and Co-Host:
<i>Paying It Forward: using Plasma from Recovered Patients to Treat COVID-19.</i>
Laura Stephens, MD, Maria Proytcheva, MD and Ronald S. Weinstein, MD. |
| 05/08/20 | People's Lab Medicine Grand Rounds Program Co-Director and Co-Host:
<i>Understanding Your COVID-19 Test Result; William D. Lainhart, PhD, D, Maria Proytcheva, MD, Ronald S. Weinstein, MD.</i> |
| 05/12/18 | <i>ISHL Guidelines on Peripheral Blood Cell Morphology, Grading, and Review and reporting by Physicians.</i> XIV Baltic Congress of Laboratory Medicine, Vilnius, Lithuania |
| 05/07/17 | <i>Reference Ranges in Neonatal Hematology: 2017 Annual Meeting of ISLH,</i> Honolulu, Hawaii |
| 04/07/16 | <i>Blood film and bone marrow features in neonates and young children.</i>
LabPlus Hematology Grand Rounds, Auckland, NZ |
| 04/04/16 | <i>Pediatric Hematopathology workshop</i> at the Hematology Society of Australia and New Zealand, Christchurch, NZ |

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- 05/18/15 *ICSH Guidelines on Peripheral Blood Cell Morphology, Grading, and Review and Reporting by Physicians* presented at the Educational Pre-Meeting Session of the 2015 Annual ISLH Meeting, Chicago, IL
- 05/16/14 *Breakfast with the Expert: Pediatric Cases: 2014 Annual Meeting of ISLH*, The Hague, The Netherlands
- 04/05/14 *Leading a Clinical Laboratory in the 21st Century: Challenges and Opportunities for the Medical Director*, Arizona Pathology Society
- 09/19/13 *Pediatric hematopathology course*, 2013 Annual Meeting of ASCP, Chicago, IL
- 05/10/13 *Peripheral blood film review and interpretation by medical staff*. 2013 Annual Meeting of the ISLH, Toronto, Canada
- 05/09/13 *Bone marrow evaluation for pediatric patients*, 2013 Annual Meeting of the ISLH, Toronto, Canada
- 11/09/12 *Laboratory Hematology Standards: Contributions from the International Council for Laboratory Hematology*. Best of ISLH, Rio de Janeiro, Brazil
- 08/11/11 *Minimal residual disease in childhood lymphoblastic leukemia*. Department of Pathology, University of Arizona, Tucson, AZ
- 05/07/11 *Challenges in pediatric bone marrow pathology*. International Society for Laboratory Hematology, New Orleans
- 03/04/11 *Minimal residual disease in childhood acute lymphoblastic leukemia*. Research Conference of the Department of Laboratory Medicine, Yale University School of Medicine, New Haven, CT
- 06/26/07 *Hematologic values for term and pre-term neonates*. YTOP Seminar Series, Children's Hospital of Philadelphia/University of Pennsylvania, PA
- 05/09/07 *Issues in pediatric cellular analysis*. Speaker at the International Society for Laboratory Hematology, Miami, FL
- 04/26/06 *Myths and reality of pediatric laboratory hematology*. Speaker at the Breakfast with the expert at the International Society for Laboratory Hematology, Amsterdam, The Netherlands
- 04/14/04 *Case presentation of Familial lymphohistiocytosis* at the Citywide Pediatric Critical Care Meeting, Children's Memorial Hospital, Chicago, IL

National Education Contributions:

1. CAP, Continue education modules HEME-C 2014: Patel J, **Proytcheva M.** T Lymphoblastic leukemia/lymphoma (Peer reviewed), 2014

07/07/2022

2. College of American Pathology Hematology and Clinical Microscopy Glossary 2015, contributor
3. **Proytcheva M**, Patel J. CPIP G Case 7: T-Lymphoblastic Leukemia/Lymphoma (SAM eligible); © 2015 College of American Pathologists - Online CME Self-Assessment Module released July 20, 2015.
4. Weinstein, R. and **Proytcheva, M.A.**, Co-Chair of People's Lab Medicine Grand Rounds, Arizona Telemedicine Program, May 2020.