

## Civil Administration

E. MASCULLI

- Bunin N, Wall DA, Hiemenz JW, Satoi Y, Lee JM, Walsh TJ; National Institute of Allergy and Infectious Disease Mycoses Study Group. Micafungin versus fluconazole for prophylaxis against invasive fungal infections during neutropenia in patients undergoing hematopoietic stem cell transplantation. *Clin Infect Dis* Nov 15;39 110:1407-16, 2004. (PMID: 15546073)
67. Bunin N, Aplenc R, Leahey A, Magira E, Grupp S, Pierson G, Monos D: Outcomes of transplantation with partial T cell depletion of matched or mismatched unrelated or partially matched related donor bone marrow in children and adolescents with leukaemias. *Bone Marrow Transplantation*, 35:151-158, 2005. (PMID: 15531896)
  68. Bunin N, Aplenc R, Iannone R, Leahey A, Grupp S, Monos D, Pierson G: Unrelated donor bone marrow transplantation for children with severe aplastic anemia: Minimal GVHD and Durable Engraftment with partial T-cell depletion. *Bone Marrow Transplantation*, 35:369-373, 2005. (PMID: 15640818)
  69. Bunin N: Practice Point Commentary: Is Chemotherapy with high- or standard-dose cisplatin a more effective treatment for pediatric germ cell tumors? *Nature Clinical Practice Urology*. 1(2)70-71, 2005.
  70. Orenstein JM, Russo P, Didier ES, Bowers C, Bunin N, Teachey DT. Fatal pulmonary microsporidiosis due to encephalitozoon cuniculi following allogeneic bone marrow transplantation for acute myelogenous leukemia. *Ultrastruct Pathol*. May-Aug;29(3-4):269-76, 2005. (PMID: 16036880)
  71. Kersun LS, Probert KJ, Lautenbach E, Bunin N and DeMichele A: Early bacteremia in pediatric hematopoietic stem cell transplant patients on oral antibiotic prophylaxis. *Pediatr Blood Cancer*, 45(2):162-169, 2005. PMID: 15593235
  72. Bunin N, Aplenc R, Grupp S, Pierson G, Monos D: Unrelated donor or partially matched related donor peripheral stem cell transplant with CD34+ selection and CD3+ addback for pediatric patients with leukemias. *Bone Marrow Transplantation*, 37: 143-149, 2006. (PMID: 16284615)
  73. Teachey DT, Bickert B, Bunin N: Daclizumab for children with corticosteroid refractory graft-versus-host disease. *Bone Marrow Transplantation*, 37: 99-99, 2006. (PMID: 16247417)
  74. Porter DL, Levine BL, Bunin N, Stadtmauer EA, Luger SM, Goldstein S, Loren A, Phillips J, Nasta S, Perl A, Schuster S, Tsai D, Sohal A, Veloso E, Emerson S, June CH. A phase 1 trial of donor lymphocyte infusions expanded and activated ex vivo via CD3/CD28 costimulation. *Blood*. 107(4):1325-1332, 2006. (PMID: 16269610)
  75. Rand EB, Bunin N, Cochran W, Ruchelli E, Olthoff KM, Bloomer JR. Sequential liver and bone marrow transplantation for treatment of erythropoietic protoporphyria. *Pediatrics*. 118;1896-1899, 2006. PMID: 17074841
  76. Heltzer ML; Paessler M; Raffini L; Bunin N; Perez EE. Successful haploidentical bone marrow transplantation in a patient with reticular dysgenesis: 3 year follow-up. *J Allergy Clin Immunol*, September 11, 2007. (PMID: 17854878)

77. Strauss KA, Puffenberger EG, Bunin N, Rider NL, Morton MC, Eastman III JT, Morton DH. Clinical application of DNA microarrays: Molecular diagnosis and HLA matching of an Amish Child with severe combined immune deficiency. *Clinical Immunol*, February 28, 2008. (PMID: 18442948)
78. Bunin NJ, Davies SM, Aplenc R, Camitta BM, DeSantes KB, Goyal RK, Kapoor N, Kernan NA, Rosenthal J, Smith FO, Eapen M. Unrelated donor bone marrow transplantation for children with acute myeloid leukemia beyond first remission or refractory to chemotherapy. *J Clin Oncology* 26;4326-4332, 2008. (PMID: 18779619; PMCID: 2653120)
79. Bailey LC, Lange BJ, Rheingold SR, Bunin NJ. Bone Marrow Relapse in Pediatric Acute Lymphoblastic Leukemia. *Lancet Oncol*. 9:873-83, 2008. (PMID: 18760243)
80. Levine JE, Barrett AJ, Zhang MJ, Arora M, Pulsipher MA, Bunin N, Fort J, Loberiza F, Porter D, Giralt S, Drobyski W, Wang, D, Pavletic, S, Ringden, O, Horowitz, M. M, Collins, R., Jr. Donor leukocyte infusions to treat hematologic malignancy relapse following allo-SCT in a pediatric population. *Bone Marrow Transplant*. 42:201-205, 2008. (PMID: 18490913)
81. Pierson, TM, Bonnemann CG, Finkel RS, Bunin N, Tennekoon GI. Umbilical cord blood transplantation for juvenile metachromatic leukodystrophy. *Annals of Neurology*. 64:583-587, 2008. (PMID: 19067349; PMCID: 2605197; NIHMS: 68471)
82. Fish JD, Duerst RE, Gelfand EW, Orange JS, Bunin N. Challenges in the use of allogeneic hematopoietic SCT for ectodermal dysplasia with immune deficiency. *Bone Marrow Transplant*. Feb;43(3):217-21, 2009. (PMID: 18794870)
83. Norris R, Paessler M, Bunin N: Donor T-cell-mediated pancytopenia after haplo-identical hematopoietic stem cell transplant for severe combined immunodeficiency. *J Pediatr Hematol Oncol*. Feb;31(2):148-150, 2009. (PMID: 19194205; PMCID: 2888481; NIHMS: 209799)
84. Pulsipher MA, Wall DA, Grimley M, Goyal RK, Boucher KM, Hankins P, Grupp SA, Bunin N: A phase I/II study of the safety and efficacy of the addition of sirolimus to tacrolimus/methotrexate graft versus host disease prophylaxis after allogeneic haematopoietic cell transplantation in paediatric acute lymphoblastic leukaemia(ALL). *Br J Haematol*. Dec;147(5):691-9, 2009. (PMID: 19744131; PMCID: 2888481; NIHMS: 209799; 10.1111/j.1365-2141.2009.0789.x)
85. Walters MC, Hardy K, Edwards S, Adamkiewicz T, Barkovich J, Bernaudin F, Buchanan GR, Bunin N, Dickerhoff R, Giller R, Haut PR, Horan J, Hsu LL, Kamani N, Levine JE, Margolis D, Ohene-Frempong K, Patience M, Redding-Lallinger R, Roberts IA, Rogers ZR, Sanders JE, Scott JP, Sullivan KM; Multicenter Study of Bone Marrow Transplantation for Sickle Cell Disease. Pulmonary, gonadal, and central nervous system status after bone marrow transplantation for sickle cell disease. *Biol Blood Marrow Transplant*. Feb;16(2):263-72, 2010. (PMID: 22093026)

86. Niemeyer CM, Kang MW, Shin DH, Furlan I, Erlacher M, Bunin NJ, Bunda S, Finklestein JZ, Sakamoto KM, Gorr TA, Mehta P, Schmid I, Kropshofer G, Corbacioglu S, Lang PJ, Klein C, Schlegel PG, Heinzmann A, Schneider M, Stary J, van den Heuvel-Eibrink MM, Hasle H, Locatelli F, Sakai D, Archambeault S, Chen L, Russell RC, Sybingco SS, Ohh M, Braun BS, Flotho C, Loh ML: Germline CBL mutations cause developmental abnormalities and predispose to juvenile myelomonocytic leukemia. *Nat Genet.* Sep;42(9):794-800, 2010. (PMID: 20694012)
87. Bunin N, Guzikowski V, Rand ER, Goldfarb S, Baluarte J, Meyers K, Olthoff KM: Solid organ transplants following hematopoietic stem cell transplant in children. *Pediatr Transplant.* Dec; 14(8):1030-5, 2010 (PMID: 20846242)
88. Cable C, Finkel RS, Lehky TJ, Biassou NM, Wiggs EA, Bunin N, Pierson TM: Unrelated umbilical cord blood transplant for juvenile metachromatic leukodystrophy: a 5-year follow-up in three affected siblings. *Mol Genet Metab.* Feb;102(2):207-9, 2011. (PMID: 21035368; PMCID: 3053057; NIHMS: 249476; 10.1016/j.ymgmc.2010.10.002)
89. Mostoufi-Moab S, Ginsberg JP, Bunin N, Zemel B, Shults J, Thayu M, Leonard MB. Body Composition Abnormalities in Long-Term Survivors of Pediatric Hematopoietic Stem Cell Transplantation. *J Pediatrics.* Aug 10, 2011 (PMID: 21839468)
90. Gilman AL, Jacobsen C, Bunin N, Levine J, Goldman F, Bendel A, Joyce M, Anderson P, Rozans M, Wall DA, Macdonald TJ, Simon S, Kadota RP: Phase I study of tandem high-dose chemotherapy with autologous peripheral blood stem cell rescue for children with recurrent brain tumors: A pediatric blood and marrow transplant consortium study. *Pediatr Blood Cancer.* Sep;57(3):506-13, 2011. (PMID: 21744474)
91. Nemecek ER, Ellis K, He W, Bunin NJ, Bajwa RS, Cheerva A, Cairo MS, Dvorak C, Duval M, Davies S, Eapen M, Gross TG, Hussein AA, Macmillan ML, Mehta PA, Pulsipher MA, Seber A, Woolfrey AE, Frangoul HA, Carpenter PA. Outcome of Myeloablative Conditioning and Unrelated Donor Hematopoietic Cell Transplantation for Childhood Acute Lymphoblastic Leukemia in Third Remission. *Biol Blood Marrow Transplant.* Dec;17(12):1833-40, 2011. (PMID: 21683798; PMCID: 3372321; NIHMS: 373862; 10.1016/j.bbmt.2011.05.014)
92. Baker KS, Bhatia S, Bunin N, Nieder M, Dvorak CC, Sung L, Sanders JE, Kurtzberg J, Pulsipher MA. NCI, NHLBI first international consensus conference on late effects after pediatric hematopoietic cell transplantation: state of the science, future directions. *Biol Blood Marrow Transplant.* Oct;17(10):1424-7, 2011. (PMID: 21723224; PMCID: 3177012; NIHMS: 308950; 10.1016/j.bbmt.2011.06007)
93. Bunin N, Small T, Szabolcs P, Scott Baker K, Pulsipher MA, Torgerson T. NCI, NHLBI/PBMTC First International Conference on Late Effects after Pediatric Hematopoietic Cell Transplantation. Persistent Immune Deficiency in Pediatric Transplant Survivors. *Biol Blood Marrow Transplant.* Jan;18(1):6-15, 2012. (PMID: 22100979; PMCID: 3253930; NIHMS: 342216; 10.1016/j.bbmt.2011.11.014)

94. Dinardo L, Brown V, Perez E, Bunin N, Sullivan KE. A single-center study of hematopoietic stem cell transplantation for primary immune deficiencies (PIDD). *Pediatr Transplant*. Feb;16(1):63-72, 2012 (PMID: 22093026)
95. Pulsipher MA, Skinner R, McDonald GB, Hingorani S, Armenian SH, Cooke KR, Gracia C, Petryk A, Bhatia S, Bunin N, Nieder ML, Dvorak CC, Sung L, Sanders JE, Kurtzberg J, Baker KS. NCI, NHLBI/PBMTCC First International Consensus Conference on Late Effects after Pediatric Hematopoietic Cell Transplantation: The Need for Pediatric Specific Long Term Follow-up Guidelines. *Biol Blood Marrow Transplant*. Mar 18(3):334-47, 2012. (PMID: 22248713)
96. Mostoufi-Moab S, Ginsberg JP, Bunin N, Zemel B, Shults J, Leonard MB. Bone density and structure in long-term survivors of pediatric allogeneic hematopoietic stem cell transplantation. *J Bone Miner Res*. 2012 Apr;27(4):760-9. (PMID: 22189761)
97. Goyal RK, Han K, Wall DA, Pulsipher MA, Bunin N, Grupp SA, Mada SR, Venkataramanan R. Sirolimus Pharmacokinetics in Early Postmyeloablative Pediatric Blood and Marrow Transplantation. *Biol Blood Marrow Transplant*. 2013 Apr 19(4):569-75. (PMID: 23266742)
98. Heilmall J, Keller M, Saltzman R, Bunin N, McDonald-McGinn D, Zakai E, de Villartay JP, Moshous D, Ariue B, McCarthy EA, Devlin BH, Parikh S., Buckley RH, Markert ML. Diagnosis of 22q11.2 Deletion Syndrome and Artemis Deficiency in Two Children with T-B=NK+ Immunodeficiency. *J Clin Immunol*. 2012 Oct 32(5):1141-4. (PMID: 22864628)
99. Seif AE, Naranjo A, Baker DL, Bunin NJ, Kletzel M, Kretschmar CS, Maris JM, McGrady PW, von Allmen D, Cohn SL, London WB, Park JR, Diller LR, Grupp SA. A Pilot Study of Tandem High-Dose Chemotherapy with Stem Cell Rescue as Consolidation for High Risk Neuroblastoma: Children's Oncology Group Study ANBL00P1. *Bone Marrow Transplant*. 2013 Jul 48(7):947-52. (PMID: 23334272; PMCID: 3638062; NIHMS: 426908; 10.1038/bmt.2012.276)
100. Oshrine BR, Li Y, Teachey DT, Heilmall J, Barrett DM, Bunin N. Immunologic recovery in children after alternative donor allogeneic transplantation for hematologic malignancies: comparison of recipients of partially T-cell-depleted peripheral blood stem cells and umbilical cord blood. *Biol Blood Marrow Transplant*. 2013 Nov 19(11):1581-9. (PMID: 23939199)
101. Dvorak CC, Hassan A, Slatter MA, Honig M, Lnkester AC, Buckley RH, Pulsipher MA, Davis JH, Gungor T, Gabriel M, Bleesing JH, Bunin N, Sedlacek P, Connelly JA, Crawford DF, Notarangelo LD, Pai SY, Hassid J, Veys P, Gennery AR, Cowan MJ. Comparison of outcomes of hematopoietic stem cell transplantation without chemotherapy conditioning by using matched sibling and unrelated donors for treatment of severe combined immunodeficiency. *J Allergy Clin Immunol*. 2014 Aug 7. [Epub ahead of print]. (PMID: 25109802; PMCID: 4186906; NIHMS: 620070)
102. Oshrine BR, Olson TS, Bunin N. Mixed chimerism and graft loss in pediatric recipients of an alemtuzumab-based reduced-intensity conditioning regimen for

- non-malignant disease. *Pediatr Blood Cancer*. 2014 June 17. (PMID: 24939325)
103. Aplenc R, Zhang MJ, Sung L, Zhu X, Ho VT, Cooke K, Dvorak C, Hale G, Isola LM, Lazarus HM, McCarthy PL, Olsson R, Pulsipher M, Pasquini C, Bunin N. Effect of body mass in children with hematologic malignancies undergoing allogeneic bone marrow transplantation. Regimen-Related Toxicity Working Committee, Center for International Blood and Marrow, Transplant Research. *Blood* 2014 May 29, 123(22):3504-3511. (PMID: 24711663; PMCID: 4041168; 10.1182/blood-2013-03-490334)
  104. Pulsipher MA, Langholz B, Wall DA, Schltz KR, Bunin N, Carroll WL, Raetz E, Gardner S, Gastier-Foster JM, Howrie D, Goyal RK, Douglas JG, Borowitz M, Barnes Y, Teachey DT, Taylor C, Grupp SA. The addition of sirolimus to tacrolimus/methotrexate GVHD prophylaxis in children with ALL: A phase 3 Children's Oncology Group/Pediatric Blood and marrow Transplant Consortium trial. *Blood* 2014 March 27, 123(17):2017-25. (PMID: 24497539; PMCID: 3968388; 10.1182/blood-2013-10-534297)
  105. Oshrine B, Morsheimer M, Heimall J, Bunin N. Reduced-intensity for hematopoietic cell transplantation of chronic granulomatous disease. *Pediatr Blood Cancer*, 2014 Aug 30; (PMID: 25175046; doi: 10.1002/pbc.25225)
  106. Maude SL, Frey N, Shaw PA, Aplenc R, Barrett DM, Bunin NJ, Chew A, Gonzalez VE, Zheng Z, Lacey SF, Mahnke YD, Melenhorst JJ, Rheingold SR, Shen A, Teachey DT, Levine BL, June CH, Porter DL, Grupp SA. Chimeric antigen receptor T cells for sustained remissions in leukemia. *N Engl J Med* 2014, Oct. 16; 371(16):1507-17. (PMID: 25317870; PMCID: 4267531; NIHMS: 640298; doi: 10.1056/NEJMoa1407222)
  107. Wagner JE Jr, Eapen M, Carter S, Wang Y, Schultz KR, Wall DA, Bunin N, Delaney C, Haut P, Margolis D, Peres E, Verneris MR, Walters M, Horowitz MM, Kurtzberg J. One-unit versus two-unit cord-blood transplantation for hematologic cancers. Blood and Marrow Transplant Clinical Trials Network. *N Engl J Med*, 2014, Oct 30; 371(18):1685-94. (PMID: 25354103; PMCID: 4257059; NIHMS: 640296; doi: 10.1056/NEJMoa1405584)

### **Abstracts:**

1. Bunin N, Kamani N, Wall D, Zipf T, Roberts M, Simms S, Canaan A: and for the Pediatric Blood and Marrow Transplant Consortium (PBMTTC) Phila., PA: Randomized trial of busulfan vs. total body irradiation (TBI) conditioning regimens for children with acute lymphoblastic leukemia (ALL): an interim analysis. *Am Soc Hematol*, 94:10;4906a, 1999.
2. Bunin N, Roberts WM, Johnston DA, Gilman AL, et al.: Residual leukemia following bone marrow transplant (BMT) in children with acute lymphoblastic leukemia. *Am Soc Hematol*, 96:11;1741a, 2000.
3. Bunin N, Carston M, Adams R, et al.: Unrelated marrow transplants for children with acute lymphoblastic leukemia (ALL) in second remission (CR2). *Am Soc Hematol*, Vol #96:11;3636a, 2000.

4. Rheingold SR, Bunin, NJ, Lange, BJ, et al.: Long term outcomes for bone marrow relapse of pediatric acute lymphocytic leukemia using intensive multiagent chemotherapy on CHP-540. *Am Soc Pediat Hematol/Oncol*, 23:3;1175a, 2001.
5. Langmuir P, Aplenc R, Bunin, N, et al.: Total body irradiation associated with long-term pulmonary function abnormalities in children after allogeneic stem cell transplantation. *Am Soc Pediat Hematol/Oncol*, 23:3;1216a, 2001.
6. Aplenc R, Langmuir P, Bunin N, et al.: Long-term pulmonary function abnormalities in children after autologous stem cell transplantation. *Am Soc Pediat Hematol/Oncol*, 23:3;1217a, 2001.
7. Bunin N, Aplenc R, Kamani N, et al.: Randomized trial of busulfan vs. total body irradiation conditioning regimens for children with ALL: A Pediatric Blood & Marrow Transplant Consortium Study. *Tandem/IBMTR/ASBMT Meetings*, 2002. *Biology Blood & Marrow Transplant*, 8:97a, 2002.
8. Bunin N, Grupp S: An unexpectedly high incidence of Epstein-Barr virus lymphoproliferative disease after CD34-selected autologous peripheral blood stem cell transplant in children with neuroblastoma. *Am Soc Hematol*, 100:11;649a, 2002.
9. Bunin N, Aplenc R, Leahey A, Grupp S, Pierson G, Monos D: Outcomes of partially T cell depleted (PTCD) unrelated or partially matched related donor bone marrow transplant (BMT) for children with leukemias. *Am Soc Hematol*, 100:11;2511a, 2002.
10. Bunin N, Leahey A, Grupp S, Pierson G, Monos D: Partial T cell depletion for unrelated donor BMT for children with severe Aplastic Anemia (SAA): Engraftment with minimal GVHD. *Biology of Blood & Marrow Transpl*. 10:2;104a 2004.
11. Bunin N, Grupp S, Aplenc R, Brown V, Monos D, Pierson G. Alternative Donor Peripheral Stem Cell Transplant (PSCT) with CD3+ Depletion and CD3+ Addback for Pediatric Patients with Leukemia. *Biology Blood & Marrow Transplant* 15:126, 2009.
12. Bunin N, Guzikowski V, Rand ER, Goldfarb S, Baluarte J, Meyers K, Olthoff KM; Divisions of Oncology Gastroenterology Pulmonary Nephrology, Department of Pediatrics Division of Transplantation, Department of Surgery, Children's Hospital of Philadelphia, Philadelphia, PA, USA: Solid organ transplants following hematopoietic stem cell transplant in children. *Pediatr Transplant* 2010 Dec;14(8):1030-5, 2010.
13. Aplenc R, Pasquini MC, Zhang, MJ, Zbu X, McCarthy PL, Ho VT, Cooke, KR, Sung L, Bunin, NJ. Effects of body mass index (BMI) in children undergoing allogeneic bone marrow transplant (BMT) for hematologic malignancies. *Biology Blood & Marrow Transplant*, S230;75a, Feb 1-5, 2012.

**Chapters/Reviews:**

1. Casper JT, Bunin NJ, Truitt R, Camitta B, and Ash R: "Pediatric bone marrow transplantation utilizing unrelated donors in Bone Marrow Transplantation in Children". F.L. Johnson and C. Pochedly, eds., New York, (pub) Raven Press, 301-327, 1989.
2. Bunin NJ: "Non-Hodgkin's lymphoma", Elizabeth R. McAnarney et al. (eds) Textbook of Adolescent Medicine, (pub) W.B. Saunders, 453-58, 1992.
3. Finlay, JL, Bunin NJ and Sinniah, D: "Non-Hodgkin's Lymphoma" in Practical Pediatric Oncology, (pub) Edward Arnold, 269-76, 1992.
4. Baker DL, Bunin NJ: "Germ Cell Tumors" In Practical Pediatric Oncology, (pub) Edward Arnold, 340-44, 1992.
5. D'Angio G, Bunin N: "Pediatric Toxicity" In: Chemoradiation: An Integrated approach to Cancer Treatment. MJ John (ed) Philadelphia, Lea & Febriger (pub), 524-559, 1993.
6. Bunin NJ, Meadows AT: "Lymphomas in children", James F. Holland et al. (eds) in Cancer Medicine , (pub) Lea & Febriger, 170;1-11 1993.
7. Grupp SA, Stern JW, Bunin N, von Allmen D, Pierson G, Nancarrow Ch, Adams R, Griffin G, and Diller L. Rapid Sequence Tandem Transplant in Children with High-Risk Neuroblastoma. WE Berdel, H Jurgens, Th. Buchner J Ritter, J Kienast, J Vormoor (eds.), in Transpl in Hemtol & Oncol II ISBN 3-540-42155-6 Springer-Verlag Berlin Heidelberg (pub) New York, pp. 270-279, 2002.
8. Bunin N, DiDomenico C, Guzikowski V: Hematopoietic Stem Cell Transplantation. Schwartz CL, Hobbie WL, Constine LS, Ruccione KS eds. Survivors of Childhood and Adolescent Cancer: A Multidisciplinary Approach (Second Edition) Springer, Berlin Heidelberg New York. Chapter 17:271-282, 2005.

# **EXHIBIT J**

Case ID: 130802504  
Control No.: 15082046



# The Children's Hospital of Philadelphia®

## Division of Oncology

34th Street and  
Civic Center Boulevard  
Philadelphia, Pa. 19104-4399  
215-590-2810  
Fax 215-590-4183

July 8, 2015

Rosemary R. Schnall, Esquire  
White and Williams LLP  
1650 Market Street  
One Liberty Place, Suite 1800  
Philadelphia, PA 19103

Dear Ms. Schnall:

I reviewed the Complaint, The Children's Hospital of Philadelphia medical records pertaining to Sarah Pulaski, the depositions of Michael Pulaski, Rene Paradis, Dr. Rheingold, Dr. Wood, Dr. Aplenc, Dr. Balis, Dr. Leahy and Dr. Evageliou, blogs, emails and the report of Dr. Sanders.

Sarah Pulaski was 9 years old when she was diagnosed on 1/3/10 with leukemia after presenting with cough and fever. Initial WBC 513,000 and platelets 63,000. Bone marrow aspirate confirmed the diagnosis of acute lymphoblastic leukemia with T cell phenotype. CSF was 2a. Cytogenetics showed t(8;14). She had a small mediastinal mass on chest X ray.

On January 4, 2010, the family consented to Children's Oncology Group AALL 0434. Of note, there are statements in the depositions of the parents that they did not read the consent form. While there may not be days in which to look this document over in an urgent situation (as was the case here), the parents met with the leukemia attendings with whom they discussed the therapy. The detailed note of the 1/4/10 family meeting and Dr. Varela's progress note indicates that the diagnosis, prognosis, treatment, side effects and risks were discussed. The parents were also told that the treatment on the Part I of this study was the same as the standard of care for treating newly diagnosed patients with T-cell ALL. Sarah's mother signed the written consent on 1/4/10 and was given a copy of the written consent. Before the consolidation phase of treatment and before Sarah was randomized to Arm D, which included nelarabine and high dose methotrexate, Dr. Evageliou met with Sarah's parents on 2/5/10 and discussed various treatment arms, risks and alternatives of Part II of the study before obtaining written consent. Sarah's mother signed the written consent on 2/5/10 and she was given a copy of the written consent. I have reviewed parents' depositions, emails and the blogs posted by the parents which indicate that they adequately understood the clinical trial and the various treatment arms on this trial.

Bone marrow aspirate at the end of induction was morphologic remission (M1), with clear CSF. Minimal residual disease (MRD) showed 3.3%. She was classified as a slow early responder and allocated to high risk therapy. Letters to the referring physicians note that additional therapy (chemotherapy vs bone marrow transplant) would be dependent upon response after consolidation. She was randomized to Arm D of the clinical trial which included nelarabine and high dose methotrexate. In March 2010, Sarah



July 8, 2015

Rosemary R. Schnall, Esquire

Page 2

and her brother underwent HLA typing in the event that Sarah became a candidate for transplantation. The test results indicated that Sarah's brother was a HLA matched donor.

Bone marrow aspirate at the end of consolidation was morphologic remission, with MRD 0. She subsequently continued with chemotherapy, as is the standard of care based upon this result. In addition to chemotherapy, she received cranial radiation 1200cGy based upon initial CSF result which is also the standard of care.

Despite aggressive chemotherapy and CNS directed therapy, she had a CNS relapse 3/25/11. Bone marrow aspirate was morphologic remission, with MRD 1.6%. She received additional salvage chemotherapy, and while CNS responded, she had progressive bone marrow disease that was resistant to additional therapy.

Allogeneic hematopoietic stem cell transplant (HSCT) is not standard of care for patients with T-ALL in first remission. With MRD assessment, transplanting patients with T-ALL in first remission may occur if they have persistently positive MRD after consolidation. This differs from patients with B-cell precursor, in whom HSCT is considered if they remain MRD positive after induction. Sarah would not have been considered a candidate for HSCT because she was MRD negative at the end of consolidation. She was appropriately assigned to the high risk arm of a Children's Oncology Group protocol with the intent of giving her more aggressive chemotherapy.

In first remission, unless strict criteria are met (which were not met in Sarah's case), we do not transplant patients with ALL (either B-cell precursor or T). There is no evidence that this patient would have benefited from HSCT in first remission. None of the studies cited by Dr. Sanders support performing HSCT in a patient who is MRD positive at the end of induction and MRD negative at the end of consolidation. HSCT involves high dose chemotherapy and total body irradiation (generally 1200 cGy) and is associated with significant morbidity, potential mortality, and sequelae. Early morbidity and mortality can result from infection, graft vs host disease, and organ toxicity including pneumonitis and veno-occlusive disease. Late sequelae include endocrine abnormalities with hypothyroidism, growth hormone deficiency, sterility (almost 100%) with need for estrogen replacement and increased risk of secondary cancers. In addition, HSCT by no means guarantees a sustained remission. Relapse remains a significant obstacle to cure, even with HSCT. The risks of HSCT in a pediatric patient with T-cell ALL who is MRD positive at the end of induction but MRD negative at the end of consolidation outweighs the potential benefit and transplanting such a patient would not be the standard of care.

During Interim Maintenance, Sarah Pulaski experienced count suppression. Count suppression is a known side effect of chemotherapy. Consistent with the standard of care and the protocol, Sarah's chemotherapy was held until her counts recovered. The count suppression that Sarah experienced during Interim Maintenance was not a basis to refer Sarah to the BMT team. Sarah was not a HSCT candidate during Interim Maintenance.

July 8, 2015

Rosemary R. Schnall, Esquire

Page 3

HSCT is recommended for children with T-cell ALL who achieve remission after relapse. Sarah never achieved remission after she relapsed in March 2011, and therefore, Sarah was not a candidate for HSCT after she relapsed.

Typically, the risks and benefits of HSCT are discussed with the parents of a T-cell ALL pediatric patient by a BMT attending at CHOP when the child is a candidate for HSCT. Unfortunately, Sarah was not a candidate and a referral was not indicated.

It is my opinion with a reasonable degree of medical certainty that care and treatment provided to Sarah Pulaski at CHOP met the standard of care. The parents were appropriately informed of the treatment, risks and alternatives. This child's unfortunate death was due to her disease.

Sincerely,



Nancy Bunin, MD

Director, Blood and Marrow Transplant Section  
Professor of Pediatrics

**BRUCE G. CASSIDY & ASSOCIATES, P.A.**

By: Bruce G. Cassidy, Esquire

I.D. #: 27786

345 Witherspoon Street

Princeton, New Jersey 08542-3405

Tel: (609) 252-9800

Fax: (609) 252-9111

Attorney for Plaintiffs

**MICHAEL J. PULASKI**, Individually and as  
Administrator of The Estate of  
**SARAH E. PULASKI**, Deceased and  
**RENE PARADIS**

Plaintiffs,

v.

**CHILDREN'S HOSPITAL OF  
PHILADELPHIA, ET AL**

Defendants.

**COURT OF COMMON PLEAS  
PHILADELPHIA COUNTY  
CIVIL DIVISION - LAW  
JURY TRIAL DEMANDED**

**AUGUST TERM, 2013**

**CASE ID: 130802504**

**MEMORANDUM OF LAW IN SUPPORT OF PLAINTIFFS' MOTION IN LIMINE TO  
PRECLUDE CULUMATIVE TESTIMONY BY DEFENDANTS' MULTIPLE EXPERTS  
AT TRIAL**

The instant action for medical malpractice and lack of informed consent is based upon Defendants' care of Plaintiffs' eleven year old child hospitalized at Defendants' institution for treatment of T-cell acute lymphoblastic leukemia (ALL).

The essence of Plaintiffs' claim is that 1.) Defendants failed to advise Plaintiffs of the risks and benefits of, inter alia, bone marrow transplant during first remission compared to the risks and benefits of chemotherapy without transplant and 2.) that Defendants deviated from the standard of care in their treatment regimen under the circumstances.

Plaintiffs have supplied Defendants with the expert report and supplemental report of Jean E. Sanders, M.D., a pediatric oncologist, who has opined that Defendants were negligent in their care and that Defendants failed to timely and adequately advise Plaintiffs of 1.) the risks and benefits of bone marrow transplant or 2.) that CHOP would not consider transplant in first remission, after Defendant Dr. Rheingold and other treating physicians had previously told Plaintiffs that their child would most probably require transplant if and when she achieved remission. Dr. Sanders' report indicated that Defendants' negligence and failure to advise Plaintiffs deprived them, and their child, of the chance of survival which transplant would have given her. (See expert reports and curriculum vitae of Dr. Sanders, Exhibits A, B and C). Plaintiff father has sworn an Affidavit indicating that he would have taken his child to transplant if he had been properly advised of the risks and benefits of the various treatment regimens. (See Exhibit D).

To rebut Dr. Sanders, Defendants have served Plaintiffs with expert reports from three pediatric oncologists who have all opined that Defendants were not negligent and that Defendants did not fail to give an informed consent. (See curriculum vitae and reports of Defendants' three experts, attached as Exhibits E, F, G, H, I and J).

Defendants' reports are from 1.) Stuart H. Gold, M.D., a pediatric oncologist whose opinion is "I disagree with Dr. Sanders that this child did not receive good care" (See Exhibit F), 2.) David A. Jacobsohn, M.D., a pediatric oncologist, who opined that "it is my opinion that the medical decision making and care provided to Sarah Pulaski by her treating physicians was appropriate and met the standard of care in this case. Appropriate informed consent was obtained

for Sarah's participation in part 1 and part 2 of AALL0434. The treatment, risks and alternatives to the study were appropriately and fully discussed with the parents... A bone marrow transplant was not an alternative treatment for Sara Pulaski at the time the consents were obtained for participation in part 1 and part 2 of the clinical trial AALL0434" (See Exhibit H) and 3.) Nancy Bunin, M.D., a pediatric oncologist at Children's Hospital (CHOP). Dr. Bunin's' opinion was that "typically, the risks and benefits of HSCT (bone marrow transplant) are discussed with the parents of a T-cell ALL pediatric patient by a BMT attending at CHOP when the child is a candidate for HSCT. Unfortunately, Sarah was not a candidate and a referral was not indicated. It is my opinion with a reasonable degree of medical certainty that care and treatment provided to Sarah Pulaski at CHOP met the standard of care. The parents were appropriately informed of the treatment, risks and alternatives. The child's unfortunate death was due to her disease." (See Exhibit J).

All three of Defendants' pediatric oncologists say the same thing. Their reports are substantially similar and their conclusions are identical. They are simply cumulative opinions.

Pennsylvania Rule of Evidence 403 is titled Exclusion of Relevant Evidence on Grounds of Prejudice, Confusion or Waste of Time. Rule 403 states:

Although relevant, evidence may be excluded if its probative value is outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

In the instant action, Defendants' attempt to utilize three separate pediatric oncologists to counter the opinion of Plaintiffs' sole pediatric oncologist is unfairly prejudicial to Plaintiff and is certainly needless presentation of cumulative evidence, violative of Pa. R. Evid. 403.

"Prejudice" does not refer to evidence that is detrimental to a party's case, but rather evidence that has an undue tendency to suggest a decision on improper basis. Leahy v. McClain, 732 A2d 619 (Pa. Super 1999), Sprague v. Walter, 441 Pa. Super 1, 656 A.2d 890, 909 (1995). In the instant action, a party's utilization of three separate experts to say the same thing would have an undue tendency to suggest to a jury that Defendants' three experts' collective opinion was more creditable than the opinion of the one expert on Plaintiffs' side of the case. It is the function of the trial Court to balance the alleged prejudicial effect of the evidence against its probative value. Commonwealth v. K.S.F., 2013 Pa. Super. Unpub. Lexis 4420., Leahy, supra., Whyte v. Robinson, 421 Pa. Super 33, 617 A2d 380 (1992), Brinich v. Jencka, 757 A2d 388 (Pa. Super 2000).

Under Rule 403, a trial judge possesses the discretion to exclude evidence based upon considerations such as undue delay, waste of time or needless presentation of cumulative evidence. Commonwealth v. Pitts, 199 Pa. Super 247, 740 A.2d 726, 733 (1999). Because of the similarity on these factors, Courts will seldom distinguish between them. Among other kinds of evidence, these bases may be used to limit the number of witnesses to prove a fact, to prohibit repetitious evidence and to exclude evidence that disserves the interests of judicial economy compared to its probative value. (Weissenberger's Pennsylvania Evidence, 2015 Court Rule Manual, chapter 403), Pitts, supra.

Pennsylvania Rule of Evidence 403 states that cumulative expert testimony is properly restricted; that multiple experts can not testify on the same issue. See Crimi v. Frankford Hospital, Torresdale Division, 2005 PHILA Ct. COM PL LEXIS 313 (2005) reversed 2006 Pa. Super Lexis 4376, 911 A2d 189 (Pa. Super Ct. September 15, 2006), without opinion.

The Court's decision to exclude evidence pursuant to Rule 403 is always fact specific; the central issue to be decided is whether or not the expert opinion alleged to be unduly prejudicial and / or cumulative is an opinion of a party's expert who has the same qualification as the opposing party's expert, and whether the expert is opining on the same standard of care as was discussed by the opposing expert.

The Courts have allowed a party's multiple experts to give their opinions only where those experts had differing specialties, and where their respective opinions pertained to different standards of care by physicians having distinct areas of expertise. See Johnson v. Romy, 451 Pa. Super 614, (1996), affirmed, 548 Pa. 671 (1997).

In Johnson, supra, a Defendant claimed three distinct areas of expertise; being orthopedic surgery, neurosurgery and neuroradiology. That Defendant acted as his own trial expert in all three specialties. Plaintiff engaged three experts; an orthopedic surgeon, a neurosurgeon and a neuro-radiologist, to counter Defendant's defense on the respective standards of care for each specialty. The Superior Court (affirmed by the Superior Court) held that the opinions of these three experts, [who were identified in discovery as experts in their respective fields twenty-two

months prior to trial, without objection by Defendant until trial was ongoing] were not cumulative, as each expert identified in discovery was intended to develop the areas of proof germane to his or her area of expertise. The Superior Court ruled that [in that case] the proffered testimony was not cumulative or redundant. Johnson, supra.

In the instant action, there is no divergence or separateness of specialty; Plaintiffs' sole expert and Defendants' three experts are all pediatric oncologists. All four experts are offering their respective opinions about the standard of care, and the scope of necessary informed consent, relative to Plaintiffs' child's treatment by pediatric oncologists. No Defendant herein was wearing "multiple hats", as did Dr. Romy.

The primary issue in the instant action revolves primarily about the question of whether treating pediatric oncologists (and the hospital Defendant conducting the experimental study) have a duty to their patient to advise the patient of the risks and benefits of the Defendants' proposed treatment, and of the risks and benefits of alternative treatment, which may substantially increase the patient's chance of survival. The secondary issue is whether Defendants were negligent in maintaining a course of therapy when their patient was not timely responding to their therapy, without advising Plaintiffs of this fact, and of alternative treatment available to substantially increase Plaintiffs' child's chance of survival.

Dr. Sanders has addressed both issues. All three of Defendants' experts have addressed both issues.

Dr. Sanders opines that a child's parents must be included in the decision making process for their child's care, and must be given the knowledge to allow them to make an informed decision. Defendants' experts opine that either: 1.) the parents were given that information, or 2.) the information need not have been given to Plaintiffs because Defendants did not believe the alternative treatment was appropriate. Dr. Sanders opined that irrespective of the Defendants' personal belief, the information pertaining to the alternative treatment must be communicated to Plaintiffs.

Plaintiff have no objection to Defendants' selection of an expert to elucidate Defendants' position that Defendants met the appropriate standard of care in their pediatric oncology treatment of Plaintiffs' child. However, Plaintiffs aver that it is grossly prejudicial to allow the "piling on" of three identical opinions pertaining to that same standard of care by Defendant pediatric oncologists. Plaintiffs aver that a reasonable fact finder would be swayed by the "force of number" of experts marshalled by Defendants.

Plaintiffs request that this Honorable Court limit Defendants to one pediatric oncologist expert opinion, pursuant to Pa. R. Evid. 403.

Respectfully submitted,

BRUCE G. CASSIDY & ASSOCIATES, P.A.

A handwritten signature in black ink, appearing to read 'Bruce G. Cassidy', is written over a horizontal line.

By: Bruce G. Cassidy

Attorney for Plaintiffs

## CERTIFICATE OF SERVICE

I Racheal N. Phillips, hereby certify that a true and correct copy of the Plaintiffs' Motion to Preclude Defendants from Offering Cumulative Expert Witness Testimony in Violation of P. A. R. Evid. 403, Memorandum of Law in Support of Plaintiffs' Motion In Limine to Preclude Culumative Testimony by Defendants' Multiple Experts at Trial and Proposed Order were filed and served electronically, consistent with Phila. L. R. 205.4, on the following counsel of record on the date indicated below:

Andrew F. Susko, Esquire  
Jason W. Poore, Esquire  
Rosemary Schnall, Esquire  
White and Williams, LLP  
1650 Market Street, Suite 1800  
Philadelphia, PA19103-7395  
Attorneys for Defendants

Bruce G. Cassidy & Associates, P.A.

Dated: August 20, 2015

  
By: Racheal N. Phillips

---

**MICHAEL J. PULASKI**, Individually and as  
Administrator of The Estate of  
**SARAH E. PULASKI**, Deceased and  
**RENE PARADIS**

Plaintiffs,

v.

**CHILDREN'S HOSPITAL OF  
PHILADELPHIA, ET AL**

Defendants.

---

**COURT OF COMMON PLEAS  
PHILADELPHIA COUNTY  
CIVIL DIVISION - LAW  
JURY TRIAL DEMANDED**

**AUGUST TERM, 2013**

**CASE ID: 130802504**

### ORDER

The matter having come before the Court on Motion of Plaintiffs, requesting that two of three of Defendants' pediatric oncology experts be precluded from testifying at trial pursuant to Pa. R. Evid. 403, and the Court having reviewed Plaintiffs' Motion, Defendants' Response to Plaintiffs' Motion and the expert reports of Plaintiffs' expert and of Defendants' three experts,

It is hereby **ORDERED and DECREED** that Plaintiffs' Motion is **GRANTED** and that Defendants shall select one pediatric oncology expert to testify at trial in this action.

It is further **ORDERED and DECREED** that Defendants shall advise Plaintiffs' counsel within ten days which expert will testify for Defendants in this action.

By The Court:

---

J.