

CURRICULUM VITAE

Xueyuan Cao PhD

Assistant Professor
University of Tennessee Health Science Center
College of Nursing
920 Madison Avenue, Room 504
Memphis, TN 38163
Ofc: 901-448-2139
Email: xcao12@uthsc.edu

EDUCATION:

<u>Institution</u>	<u>Degree</u>	<u>Date of Degree</u>
University of Memphis Memphis, TN	PhD (Applied Statistics)	08/09-08/14
Iowa State University Ames, IA	MS (Statistics)	01/05-12/06
Iowa State University Ames, IA	PhD (MCDB)	08/09-12/05
Institute of Genetics Chinese Academy of Science Beijing, China	MS (Genetics)	08/93-08/96
Shandong Agricultural University Tai'an, China	BA (Horticulture)	08/89-07/93

HONORS/AWARDS:

Member of Pinnacle Honor Society, 2011
All But Dissertation (ABD) Tuition Scholarships, Iowa State University, 2005-2006
Molecular, Cellular and Developmental Biology competitive proposal award, 2002
Premium for Academic Excellence (PACE), Iowa State University, 1999-2000

SOCIETY MEMBERSHIPS:

International Chinese Statistical Association (ICSA), 2015-present
Treasurer of West Tennessee Chapter of American Statistical Association, 2011-present
American Statistical Association (ASA), 2006 – present member
Eastern North American Region (ENAR), 2012-2013
American Medical Informatics Association (AMIA), 2009

UNIVERSITY APPOINTMENTS:

<u>Type/Rank</u>	<u>Institution</u>	<u>Date (mo/yr)</u>
Assistant Professor	UT Health Science Center College of Nursing,	10/17 – present

Nursing-Research Programs

HOSPITAL/CLINICAL APPOINTMENTS:

<u>Type/Rank</u>	<u>Institution</u>	<u>Date (mo/yr)</u>
Lead Senior Biostatistician	St Jude Children's Research Hospital Department of Biostatistics,	11/15 – 10/17
Senior Biostatistician	St Jude Children's Research Hospital Department of Biostatistics	08/12 – 10/15
Biostatistician	St Jude Children's Research Hospital Department of Biostatistics	06/09 – 7/12
Statistical Analyst	St Jude Children's Research Hospital Department of Biostatistics	01/07 – 05/09

OTHER ACADEMIC APPOINTMENTS:

<u>Type/Rank</u>	<u>Institution</u>	<u>Date (mo/yr)</u>
Postdoctoral Fellow	Iowa State University Department of GDCB	05/06 – 09/06
Graduate Assistant	Iowa State University Department of GDCB	08/99 – 05/06
Research Assistant	Institute of Genetics, Chinese Academy of Sciences	08/99 – 05/06

TEACHING EXPERIENCE:

St Jude Children's Research Hospital

- (2014) High performance computing using institutional cluster
- (2013) PROMISE analysis training for DBCBB

Iowa State University

- (Fall 2005) Introduction to Statistics.
- (Spring 2004) Molecular Genetics lab.

EDITORIAL APPOINTMENTS:

Editorial Board for Austin Biometrics and Biostatistics	2014-present
Editorial Board for Annals of Biometrics & Biostatistics	2013~ present
Editorial Board for BioMed Research International	2011-present
Editorial Board for Computational and Mathematical Methods in Medicine	2014-09/2017

GRANT SUPPORT:

<u>Agency</u>	<u>Project Title</u>
National Cancer Institute (NCI) R01CA132946	Pharmacogenetics of the Ara-C Metabolic Pathway. Amount: \$1,520,035.00. Funding Period: 5/2014-4/30/2019 Lamba, J. & Pounds S.

National Cancer Institute (NCI)
P30CA021765-35
CORE Biostatistics Shared Resource
Amount: \$1,858,630.00.
Funding Period: 3/2014 - 2/2019
Boyett J.

National Cancer Institute (NCI)
P30CA021765-34
CORE Biostatistics Shared Resource
Amount: \$1,455,166.00.
Funding Period: 03/2012-2/2014
Boyett J.

National Cancer Institute (NCI)
R01CA132946-01
Pharmacogenetics of the Ara-C Metabolic Pathway.
Amount: \$1,280,621.00.
Funding Period: 04/2008-1/2013
Lamba, J.

CONTRIBUTED/INVITED TALKS:

1. POST: a framework for set-based association analysis in high-dimensional data. *IEEE International Conference on Bioinformatics and Biomedicine (BIBM2017)*. Nov 13-16. Kansas City, MO, USA
2. CC-PROMISE: Projection onto the most interesting statistical evidence (PROMISE) with canonical correlation to integrate gene expression and methylation data with multiple pharmacological and clinical endpoints. *UT-KBRIN Bioinformatics Summit 2016*. Apr 8-10, 2016. Lake Barkley State Resort Park in Cadiz, KY
3. Big data in biomedical research. *IEEE International Conference on Big Data Analysis (ICBDA2016)*. March 12-14, 2016. Hangzhou, China
4. Association Pattern Test (APT): a hypothesis testing procedure to identify specific biologically interesting associations with multiple phenotype variables. *Fall Conference on Statistics in Biology*. October 13 ~ 15, 2008, Ames, Iowa, USA
5. Molecular analysis of the CRINKLY4-like gene family in *Arabidopsis thaliana*. *The Plant Sciences Institute Symposia "Plant Proteomes: Structure, Changes, Interactions and Functions"* June 20-23, 2002. Ames, Iowa.

PEER REVIEWED PRESENTATIONS:

6. Qian M, **Cao X**, Devidas M, Yang W, Cheng C, Carroll A, Heerema NA, Zhang H, Moriyama T, Gastier-Foster JM, Xu H, Raetz EA, Larsen E, Winick N, Bowman WP, Martin PL, Mardis ER, Fulton R, Zambetti G, Borowitz M, Wood B, Nichols KE, Carroll WL, Pui C-H, Mullighan CG, Evans WE, Hunger SP, Relling MV, Loh ML, and Yang JJ. TP53 Germline Variations Influence the Predisposition and Prognosis of Acute Lymphoblastic Leukemia in Children. *59th ASH Annual Meeting and Exposition*. December 9~12 2017, Atlanta, GA
7. Bargal S, Rafiee R, Crews KR, **Cao X**, Rubnitz JE, Pounds S, and Lamba J. Genome-Wide Association Study (GWAS) Identifies SNPs in GPR56 and IGF1R Predictive of Leukemic Cell in Vitro cytarabine Sensitivity in Pediatric AML. *59th ASH Annual Meeting and Exposition*. December 9~12 2017, Atlanta, GA

8. Bargal S, Rafiee R, Crews KR, **Cao X**, Rubnitz JE, Pounds S, and Lamba J. Risk Score Generated from Ara-C Metabolic Pathway Predicts Leukemic Cell Intracellular Ara-CTP Levels in AML-97 Pediatric Patients. *59th ASH Annual Meeting and Exposition*. December 9~12 2017, Atlanta, GA
9. Olaya J, **Cao X**, Pounds S. R2GPU: A Very Simple R Interface for General Purpose Computing on Nvidia GPUs. *useR!2017*. Brussels Spain 04.07.2017-07.07.2017
10. Alexander TB, Gu Z, Choi JK, Loh ML, Horan J, Buldini B, Basso G, Elitzur S, Zwaan CM, Haas VD, Yeoh AEJ, Reinhardt D, Tomizawa D, Lammens T, Moerloose BD, Zhou L, Hori H, Moorman AV, Moore AS, Hrusak O, Meshinchi S, Orgel E, Devidas M, Hunger SP, Auvil JMG, Smith MA, Davidsen TM, Hermida LC, Gesuwan P, Marra MA, Ma Y, Mungall AJ, Moore R, Gerhard DS, **Cao X**, Shi L, Pounds S, Inaba H and Mullighan C. Genomic Landscape of Pediatric Mixed Phenotype Acute Leukemia. *58th ASH Annual Meeting and Exposition*. December 3~6 2016, San Diego, CA
11. **Cao X**, George EO, Wang M, Armstrong DB, Cheng C, Rubnitz J, Downing J, and Pounds S. POST: a framework for set based association analysis in high dimensional genetic data. *MCBIOS-XIII*. March 3-5, 2016. University of Memphis, Memphis, TN.
12. Lamba JK, Pounds S, **Cao X**, Raimondi SC, Downing JR, Ribeiro RC, and Rubnitz JE. Methylation of DNMT3B Strongly Associates with the Methylome, Cytogenetic Risk Groups, and Prognosis of Pediatric Acute Myeloid Leukemia. *57th ASH Annual Meeting and Exposition*. December 5~8 2015, Orlando, FL
13. Pounds S, **Cao X**, Raimondi SC, Downing JR, Ribeiro RC, Rubnitz JE and Lamba JK. CC-PROMISE: Projection onto the most interesting statistical evidence (PROMISE) with canonical correlation to integrate gene expression and methylation data with multiple pharmacological and clinical endpoints. *iBRIGHT2015*. November 1-3, 2015, The University of Texas MD Anderson Cancer Center, Houston, TX
14. Pounds S, **Cao X**, Raimondi S, Campana D, Downing J, Ribeiro RC, Rubnitz JE and Lamba JK. The methylome of pediatric acute myeloid leukemia. *2015 ASCO Annual Meeting*. May 29 - June 2, 2015; Chicago, Illinois
15. Lamba JK, Chauhan L, Echeverri C, Korn K, Kochar K, **Cao X** and Pounds S. High-Throughput, High-Content siRNA/Drug Modifier Screen for Validation of Transcriptional Profiles Predictive of Cytarabine Response in AML. *56th ASH Annual Meeting and Exposition*. December 6~9 2014, San Francisco, CA
16. Lamba JK, Pounds S, **Cao X**, Crews KR, Raimondi S, Campana D, Baker SD, Ribeiro RC and Rubnitz JE. Genetic variations in cytarabine pathway genes as determinants of outcome in acute myeloid leukemia. *2013 ASCO Annual Meeting*. May 31 - June 4, 2013; Chicago, Illinois
17. Karol SE, Coustan-Smith E, **Cao X**, Shurtleff SA, Raimondi SC, Choi JK, Ribeiro RC, Dahl GV, Bowman WP, Taub JW, Degar B, Leung W, Downing JR, Pui CH, Rubnitz JE, Campana D, Inaba H. Prognostic Factors for Children with Acute Myeloid Leukemia Who Achieve Minimal Residual Disease-Negative Status after Induction Therapy. *55th ASH Annual Meeting and Exposition*. December 7~10 2013, New Orleans, LA
18. Yang JJ, Cheng C, Meenakshi D, **Cao X**, Campana D, Yang W, Fan Y, Neale GAM, Cox N, Scheet P, Borowitz MJ, Winick N, Martin PL, Bowman WP, Camitta B, Reaman G, Carroll WL, Willman CL, Hunger SP, Evans WE, Pui CH, Loh ML, and Relling MV. Genome-Wide Association Study Identifies Germline Polymorphisms Associated with Relapse of Childhood Acute Lymphoblastic Leukemia. *54th ASH Annual Meeting and Exposition*. December 8~11 2013, Atlanta, GA
19. Lamba JK, Pounds S, **Cao X**, Crews K, Campana D, Downing JR, Ribeiro R, and Rubnitz JE. Cytarabine-Induced Gene Expression Signatures in AML Patients and Its Association with Clinical Outcome. *54th ASH Annual Meeting and Exposition*. December 8~11 2013, Atlanta, GA

20. Lamba JK, Pounds S, **Cao X**, Crews K, Raimondi S, Campana D, Baker SD, Ribeiro RC, Rubnitz JE. Genetic variations in cytarabine pathway genes as determinants of outcome in acute myeloid leukemia. ASCO Annual Meeting. May 31-June 4, 2013, Chicago IL
21. Lamba JK, Mitra A, Crews K, Pounds S, **Cao X**, Gandhi V, Plunkett W, Rubnitz JE and Ribeiro RC. Pathway Based Pharmacogenomics of Cytarabine in Pediatric Acute Myeloid Leukemia. 52nd ASH Annual Meeting and Exposition. December 4~7 2010, Orlando FL.
22. Lamba JK, Crews K, Pounds S, **Cao X**, Gandhi V, Plunkett W, Baker SD, Pui CH, Campana D, Downing JR, Rubnitz JE and Ribeiro RC. Gene Expression Patterns Associated with Cytarabine Pharmacology and Outcome in Pediatric Acute Myeloid Leukemia. 51st ASH Annual Meeting and Exposition. December 5 ~ 8 2009, New Orleans, LA.
23. Lamba JK, Mitra A, Crews K, Pounds S, **Cao X**, Gandhi V, Plunkett W, Rubnitz JE and Ribeiro RC. 5'Nucleotidase (NT5C2) Genotype Influences Leukemic Blast Concentration of Ara-CTP in Pediatric Patients with Acute Myeloid Leukemia. 51st ASH Annual Meeting and Exposition. December 5 ~ 8 2009, New Orleans, LA.
24. Lamba JK, Crews K, Pounds S, **Cao X**, Baker SD, Gandhi V, Plunkett W, Downing JR, Rubnitz JE and Ribeiro RC. Gene Expression Profiling of Acute Myeloid Leukemia Shows Therapeutically Meaningful Patterns of Association with Ara-CTP Pharmacokinetics and Pharmacodynamics. 50th ASH Annual Meeting and Exposition. December 6 ~ 9 2008, San Francisco, CA.
25. Yang JJ, Yang W, Cheng C, Meenakshi D, **Cao X**, Campana D, Borowitz MJ, Willman CL, Bowman WP, Reaman G, Carroll WL, Hunger SP, Evans WE, Pui CH and Relling MV. Genetically Defined Racial Differences Underlie Risk of Relapse in Childhood Acute Lymphoblastic Leukemia. 50th ASH Annual Meeting and Exposition. December 6 ~ 9 2008, San Francisco, CA.
26. Becraft PW, **Cao X** Chettoor A. The COP9 signalsome is involved in ACR4 receptor turnover. Plant Biology 2007: July 7 - July 12, 2007, Chicago, Illinois, USA
27. Chettoor A, Li K, **Cao X** and Becraft PW. The COP9 signalsome is involved in ACR4 receptor turnover. Midwest ASPB Meeting. March 24-25, 2007. Michigan State University, East Lansing, MI
28. Becraft PW, Costa LM, Dey N, Perez P, Gutierrez-Marcos JF, **Cao X**, McCarty DR, Biderre-Petit C, Kbhaya B. Transcriptional regulation of the maize *Viviparous1 (Vp1)* gene. Plant Biology 2005: July 16 - July 20, 2005, Seattle, Washington, USA
29. **Cao X***, Dey N, Perez P, McCarty DR, Becraft PW. Transcriptional regulation of the maize *vp1* gene. 47th Annual Maize Genetics Conference. March 10-13, 2005. Grand Geneva Resort Lake Geneva, Wisconsin.
30. **Cao X**, Asuncion-Crabb Y, Sandal L and Becraft PW. Analysis of CRINKLY4-like Receptor Kinase genes in *Arabidopsis*. 12th International conference on Arabidopsis Research. June 23-27, 2001. University of Wisconsin Madison.
31. **Cao X**, Su Y and Lu D (1998). Studies on transfer of two genes into Alfalfa by *Agrobacterium Rhizogenes*. Abstracts of Eighteenth International Congress of Genetics. pp: 160
32. Lu D, Wang Q, **Cao Y**, et al. (1996) Transfer of a gene encoding proteins containing richness of sulphur amino acids into Alfalfa and Birdfoot Trefoil. Abstracts of 2nd- Pacific Conference on Plant Cell and Tissue Culture pp: 116

PEER REVIEWED PUBLICATIONS:

1. **Cao X**, George EO, Wang M, Armstrong DB, Cheng C, Raimondi S, Rubnitz JE, Downing JR, Kundu M, and Pounds SB. (2018) POST: a framework for set-based association analysis in high-dimensional data. *Methods* in press

2. Lamba JK, **Cao X**, Raimondi SC, Rafiee R, Downing JR, Lei S, Gruber T, Ribeiro RC, Rubnitz JE, and Pounds SB. (2018) *Oncotarget* in press
3. Howard SC, Zaidi A, **Cao X**, Weil O, Bey P, Patte C, Samudio A, Haddad L, Lam CG, Moreira C, Pereira A, Harif M, Hessissen L, Choudhury S, Fu L, Caniza M, Lecciones J, Traore F, Ribeiro RC, and Gagnepain-Lacheteau A (2018) The My Child Matters programme: impact of public-private partnerships on paediatric cancer care in low-income and middle-income countries. *Lancet Oncology* in press
4. Ma X, Liu Y, Liu Y, Alexandrov LB, Edmonson MN, Gawad C, Zhou X, Li Y, Rusch MC, Easton J, Huether R, Gonzalez-Pena V, Wilkinson MR, Hermida LC, Davis S, Sioson E, Pounds S, **Cao X**, Ries RE, Wang Z, Chen X, Dong L, Diskin SJ, Smith MA, Guidry Auvil JM, Meltzer PS, Lau CC, Perlman EJ, Maris JM, Meshinchi S, Hunger SP, Gerhard DS, Zhang J. (2018) Pan-cancer genome and transcriptome analyses of 1,699 paediatric leukaemias and solid tumours. *Nature*. 555(7696):371-376 PMID:29489755
5. Qian M, **Cao X**, Devidas M, Yang W, Cheng C, Carroll A, Heerema NA, Zhang H, Moriyama T, Gastier-Foster JM, Xu H, Raetz EA, Larsen E, Winick N, Bowman WP, Martin PL, Mardis ER, Fulton R, Zambetti G, Borowitz M, Wood B, Nichols KE, Carroll WL, Pui C-H, Mullighan CG, Evans WE, Hunger SP, Relling MV, Loh ML, and Yang JJ. (2018) TP53 Germline Variations Influence the Predisposition and Prognosis of Acute Lymphoblastic Leukemia in Children. *J Clin Oncol*. 36(6):591-599. PMID:29300620
6. Inaba H, **Cao X**, Han AQ, Panetta JC, Ness KK, Metzger ML, Rubnitz JE, Ribeiro RC, Sandlund JT, Jeha S, Cheng C, Pui CH, Relling MV, Kaste SC. (2018) Bone mineral density in children with acute lymphoblastic leukemia. *Cancer*. 124(5):1025-1035. PMID:29266176
7. Ramsey LB, Pounds S, Cheng C, **Cao X**, Yang W, Smith C, Karol SE, Liu C, Panetta JC, Inaba H, Rubnitz JE, Metzger ML, Ribeiro RC, Sandlund JT, Jeha S, Pui CH, Evans WE, Relling MV. (2017) Genetics of pleiotropic effects of dexamethasone. *Pharmacogenet Genomics*. 27(8):294-302.
8. Karol SE, Larsen E, Yang W, Cheng C, **Cao X**, Ramsey LB, Fernandez CA, McCorkle JR, Paugh SW, Autry RJ, Lopez-Lopez E, Diouf B, Jeha S, Pui CH, Raetz EA, Winick NJ, Carroll WL, Hunger SP, Loh ML, Devidas M, Evans WE, Yang JJ, and Relling MV. (2017) Genetics of ancestry-specific risk for relapse in acute lymphoblastic leukemia. *Leukemia*. 31(6):1325-1332.
9. Faber ZJ, Chen X, Gedman AL, Boggs K, Cheng J, Ma J, Radtke I, Chao JR, Walsh MP, Song G, Andersson AK, Dang J, Dong L, Liu Y, Huether R, Cai Z, Mulder H, Wu G, Edmonson M, Rusch M, Qu C, Li Y, Vadodaria B, Wang J, Hedlund E, **Cao X**, Yergeau D, Nakitandwe J, Pounds SB, Shurtleff S, Fulton RS, Fulton LL, Easton J, Parganas E, Pui CH, Rubnitz JE, Ding L, Mardis ER, Wilson RK, Gruber TA, Mullighan CG, Schlenk RF, Paschka P, Döhner K, Döhner H, Bullinger L, Zhang J, Klc JM, Downing JR. (2016) The genomic landscape of core-binding factor acute myeloid leukemias. *Nat Genet*. 48(12):1551-1556.
10. **Cao X**, Crews KR, Downing J, Lamba J and Pounds SB (2016) CC-PROMISE effectively integrates two forms of molecular data with multiple biologically related endpoints. *BMC Bioinformatics*. 17(Suppl 13):382. PMID: 27766934
11. Nguyen R, Jeha S, Zhou Y, **Cao X**, Cheng C, Bhojwani D, Campbell P, Howard SC, Rubnitz J, Ribeiro RC, Sandlund JT, Gruber T, Inaba H, Pui CH, and Metzger ML. (2016) The role of leukapheresis in the current management of hyperleukocytosis in newly diagnosed childhood acute lymphoblastic leukemia. *Pediatr Blood Cancer*. 63(9):1546-51
12. Bhise NS, Chauhan L, Shin M, **Cao X**, Pounds S, Lamba V, and Lamba JK. (2016) MicroRNA-mRNA Pairs Associated with Outcome in AML: From In Vitro Cell-Based Studies to AML Patients. *Front Pharmacol*. 6:324.

13. Moriyama T, Metzger ML, Wu G, Nishiia R, Qian M, Devidas M, Yang w, Cheng C, **Cao X**, Quinn E, Raimondi S, Gastier-Foster J, Raetz E, Larsen E, Martin PL, Bowman WP, WinickN, Komada Y, Wang S, Edmonson M, Xu H, Mardis E, Fulton R, Pui CH, Mullighan C, Evans WE, Zhang J, Hunger SP, Relling MV, Nichols KE, Loh ML, and Yang JJ. (2015) Germline genetic variation in ETV6 and risk of childhood acute lymphoblastic leukemia: a systematic genetic study. *Lancet Oncology* 16(16):1659-1666.
14. Lamba JK, Pounds S, **Cao X**, Crews KR, Cogle CR, Bhise N, Raimondi SC, Downing JR, Baker SD, Ribeiro RC and Rubnitz JE. (2015) Clinical significance of in vivo cytarabine induced gene expression signature in AML. *Leukemia and Lymphoma* 57(4): 909-920.
15. Karol SE, Coustan-Smith E, **Cao X**, Shurtleff SA, Raimondi SC, Choi JK, Ribeiro RC, Dahl GV, Bowman WP, Taub JW, Degar B, Leung W, Downing JR, Pui CH, Rubnitz JE, Campana D and Inaba H. (2015). Prognostic factors in children with acute myeloid leukaemia and excellent response to remission induction therapy. *Br J Haematol.* 168(1):94-101
16. Burke MJ, Lamba JK, Pounds S, **Cao X**, Ghodke-Puranik Y, Lindgren BR, Weigel BJ, Verneris MR, Miller JS (2014) A Therapeutic Trial of Decitabine and Vorinostat in Combination with Chemotherapy for Relapsed/Refractory Acute Lymphoblastic Leukemia. *Am J Hematol.* 89(9):889-95.
17. Rubnitz JE, Inaba H, Leung WH, Pounds S, **Cao X**, Campana D, Ribeiro RC, and Pui CH. (2014) Definition of cure in childhood acute myeloid leukemia. *Cancer.* 120(16): 2490-6
18. Inaba h, Gaur AH, **Cao X**, Flynn PM, Pounds SB, Avutu V, Marszal L, Howard SC, Pui CH, Ribeiro RC, Hayden RT, and Rubnitz JE. (2014) Feasibility, efficacy, and adverse effects of outpatient antibacterial prophylaxis in children with acute myeloid leukemia. *Cancer.* 120(13): 1985-1992.
19. **Cao X**, Mitra AK, Stanley Pounds, Kristine R. Crews, Varsha Gandhi, William Plunkett, M. Eileen Dolan, Christine Hartford, Susana Raimondi, James Downing, Jeffrey E. Rubnitz, Raul C. Ribeiro, and Jatinder K. Lamba. (2013) *RRM1* and *RRM2* pharmacogenetics: association with phenotypes in HapMap cell lines and acute myeloid leukemia patients. *Future Medicine.* 14(12): 1449-1466.
20. Gamazon ER, Lamba JK, Pounds S, Stark AL, Wheeler HE, **Cao X**, Im HK, Mitra AK, Rubnitz JE, Ribeiro RC, Raimondi S, Campana D, Crews KR, Wong SS, Welsh M, Huler I, Gorsic L, Hartford CM, Zhang W, Cox NJ, Dolan ME. (2013) Comprehensive genetic analysis of cytarabine sensitivity in a cell-based model identifies polymorphisms associated with outcome in AML patients. *Blood.* 121(21): 4366-4376.
21. Mortland L, Alonzo TA, Walter RB, Gerbing RB, Mitra AK, Pollard JA, Loken MR, Hirsch B, Raimondi S, Franklin J, Pounds S, **Cao X**, Rubnitz JE, Ribeiro RC, Gamis A, Meshinchi S, Lamba JK. (2013) Clinical significance of CD33 nonsynonymous single-nucleotide polymorphisms in pediatric patients with acute myeloid leukemia treated with gemtuzumab-ozogamicin-containing chemotherapy. *Clinical Cancer Research.* 19(6):1620-7.
22. Buaboonnam J, **Cao X**, Pauley JL, Pui CH, Ribeiro RC, Rubnitz JE, Inaba H. (2013) Sequential administration of methotrexate and asparaginase in relapsed or refractory pediatric acute myeloid leukemia. *Pediatric Blood & Cancer.* 60 (7):1161-1164.
23. O'Brien MM, **Cao X**, Pounds S, Dahl GV, Raimondi SC, Lacayo NJ, Taub J, Chang M, Weinstein HJ, Ravindranath Y, Inaba H, Campana D, Pui CH, Rubnitz JE. (2013) Prognostic features in acute megakaryoblastic leukemia in children without Down syndrome: a report from the AML02 multicenter trial and the children's oncology group study POG 9421. *Leukemia.* 27:731-734.
24. Inaba H, Coustan-Smith E, **Cao X**, Pounds SB, Shurtleff SA, Wang KY, Raimondi SC, Onciu M, Jacobsen J, Ribeiro RC, Dahl GV, Bowman WP, Taub JW, Degar B, Leung W, Downing JR, Pui CH, Rubnitz JE, Campana D. (2012) Comparative analysis of different approaches to measure treatment response in acute myeloid leukemia. *J Clin Oncol.* 30(29): 3625-3632.

25. Rubnitz JE, Pounds S, **Cao X**, Jenkins L, Dahl G, Bowman WP, Taub JW, Pui CH, Ribeiro RC, Campana D, Inaba H. (2012) Treatment outcome in older patients with childhood acute myeloid leukemia. *Leukemia*. 118(24): 6253-6259.
26. Inaba H, Surprise HC, Pounds S, **Cao X**, Howard SC, Ringwald-Smith K, Buaboornam J, Dahl G, Bowman WP, Taub JW, Campana D, Pui CH, Ribeiro RC, Rubnitz JE. (2012) Effect of body mass index on the outcome of children with acute myeloid leukemia. *Cancer*. 118(23): 5989-5996.
27. Yang JJ, Cheng C, Devidas M, **Cao X**, Campana D, Yang W, Fan Y, Neale G, Cox N, Scheet P, Borowitz MJ, Winick NJ, Martin PL, Bowman WP, Camitta B, Reaman GH, Carroll WL, Willman CL, Hunger SP, Evans WE, Pui CH, Loh M, Relling MV. (2012) Genome-wide association study identifies germline polymorphisms associated with relapse of childhood acute lymphoblastic leukemia. *Blood*. 120(20) 4197-4204.
28. Mitra AK, Crews K, Pounds S, **Cao X**, Downing JR, Raimondi S, Campana D, Ribeiro RC, Rubnitz JE, and Lamba JK. (2011) Impact of genetic variation in FKBP5 on clinical response in pediatric acute myeloid leukemia patients: a pilot study. *Leukemia*. 25(8): 1354-1356.
29. Lamba JK, Crews KR, Pounds SB, **Cao X**, Gandhi V, Plunkett W, Razzouk BI, Lamba V, Baker SD, Raimondi SC, Campana D, Pui CH, Downing JR, Rubnitz JE, Ribeiro RC. (2011) Identification of predictive markers of cytarabine response in AML by integrative analysis of gene-expression profiles with multiple phenotypes. *Pharmacogenomics*. 12(3): 327-3239.
30. Mitra AK, Crews KR, Pounds S, **Cao X**, Feldberg T, Ghodke Y, Gandhi V, Plunkett W, Dolan ME, Hartford C, Raimondi S, Campana D, Downing J, Rubnitz JE, Ribeiro RC, and Lamba JK. (2011) Genetic variants in cytosolic 5'-nucleotidase II are associated with its expression and cytarabine sensitivity in HapMap cell lines and in patients with acute myeloid leukemia. *J Pharmacol Exp Ther*. 339(1):9-23.
31. Yang JJ, Cheng C, Devidas M, **Cao X**, Fan Y, Campana D, Yang W, Neale G, Cox NJ, Scheet P, Borowitz MJ, Winick NJ, Martin PL, Willman CL, Bowman WP, Camitta BM, Carroll A, Reaman GH, Carroll WL, Loh M, Hunger SP, Pui CH, Evans WE, Relling MV. (2011) Ancestry and pharmacogenomics of relapse in acute lymphoblastic leukemia. *Nature Genetics*. 43: 237-241.
32. Inaba H, **Cao X**, Pounds S, Pui CH, Rubnitz JE, Ribeiro RC, and Razzouk BI. (2011) Randomized trial of two doses of granulocyte colony-stimulating factor after induction chemotherapy in pediatric acute myeloid leukemia. *Cancer*. 117 (6): 1313-1320.
33. Pounds S, **Cao X**, Cheng C, Campana D, Evans WE, Pui CH, and Relling MV. (2011) Integrated analysis of pharmacokinetic, clinical, and SNP microarray data using projection onto the most interesting statistical evidence with adaptive permutation testing. *Int. J. Data Mining and Bioinformatics*. 5(2): 143-157.
34. Rubnitz JE, Inaba H, Dahl G, Ribeiro RC, Bowman WP, Taub J, Pounds S, Razzouk BI, Lacayo NJ, **Cao X**, Meshinchi S, Degar B, Airewele G, Raimondi SC, Onciu M, Coustan-Smith E, Downing JR, Leung W, Pui CH, Campana D. (2010) Minimal residual disease-directed therapy for childhood acute myeloid leukemia: results of the AML02 multicenter trial. *Lancet Oncology*, 11: 543-552.
35. Radtke I, Mullighan CG, Ishii M, Su X, Cheng J, Ma J, Ganti R, Cai Z, Goorha S, Pounds SB, **Cao X**, Obert C, Armstrong J, Zhang J, Song G, Ribeiro RC, Rubnitz JE, Raimondi SC, Shurtleff SA, Downing JR. (2009) Genomic analysis reveals few genetic alterations in pediatric acute myeloid leukemia. *Proc Natl Acad Sci USA*. 106 (31): 12944-12949.
36. Pounds S, Cheng C, **Cao X**, Crews KR, Plunkett W, Gandhi V, Rubnitz J, Ribeiro RC, Downing JR, Lamba J. (2009) PROMISE: a tool to identify genomic features with the most statistical evidence for the most biologically interesting pattern of correlations with multiple endpoint variables. *Bioinformatics*. 25(16):2013-9.

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SOFTWARE DEVELOPMENT:

Package on Bioconductor:

PROMISE:

<http://www.bioconductor.org/packages/release/bioc/html/PROMISE.html>

CCPROMIE:

<https://bioconductor.org/packages/devel/bioc/html/CCPROMISE.html>

POST:

<https://bioconductor.org/packages/release/bioc/html/POST.html>