

**DONGSUN CAO**  
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**OBJECTIVE:**

Seeking for a challenging position as a Statistical Analyst / Biostatistician / SAS Programmer to use my excellent academic achievements and experience in biostatistics, genomics, biology, and SAS programming skills

**QUALIFICATION:**

- In-depth knowledge of clinical trial.
- All round knowledge of medical research related to any therapeutical area.
- Excellent knowledge of biostatistics.
- Excellent and efficient SAS programming techniques including **SAS/BASE, SAS/GRAPH, SAS/STAT, MACRO, Proc SQL, ODS**
- Excellent verbal and written communication skills
- Strong motivation

**EDUCATION:**

Ph.D in Biological Sciences  
The University of Iowa, Iowa City, IA 52246

B.S. in Genetics 1987  
Beijing Agricultural University  
Beijing, China

**CERTIFICATE**

SAS Certified Base programmer for SAS 9.0



SAS Certified Advanced programmer for SAS 9.0



**SKILLS PROFILE:**

**Statistical and SAS Skills**

- Linear regression
- Categorical data analysis
- Survival analysis
- Experimental design
- **Proficiency in SAS (SAS/BASE, SAS/GRAPH, SAS/STAT, MACRO, Proc SQL, ODS), R, BioConductor**

**Computer Skills**

- Database handling
- High proficiency on MS, scientific graphic and desk publishing software
- HTML, C, Java, SQL, PERL

**Genomics**

- DNA and RNA preparation and hybridization

- Genetic and physical mapping (BAC, 5' RACE, Chromosome walk)
- Microarray experiment design and Data analysis

#### **Molecular Biology and Cell Biology**

- Protein analysis (e.g. Electrophoresis, Western Blot, ELISA)
- Molecular biology techniques (e.g., Cloning, Southern and Northern blot, Real-time PCR,

Site-directed mutagenesis, EMSA, BAC, 5' RACE, siRNA)

- Extensive cell and tissue culture expertise
- Evaluation of signal transduction pathways
- Immunofluorescence microscopy
- Assay for apoptosis, cytotoxicity

### **THERAPEUTIC EXPERIENCES**

#### **Cardiovascular**

- Cardiovascular - Heart Failure, AF

#### **Oncology**

- Oncology - Lung Cancer
- Oncology - Acute Myeloid Leukemia Cancer
- Oncology - Malignant Tumors Cancer

#### **Respiratory**

- Respiratory - Lung Cancer
- Respiratory - Lung Function

#### **Infectious Diseases**

- AIDS

#### **Pain management**

#### **Immunology**

### **STATISTICAL COURSES AND TRAINING SESSIONS:**

**Statistical Experimental Design I, II,**

**Intermediate Statistics (BIOS 162, UNC)**

**Linear Regression (BIOS 163, UNC)**

**Statistics Consulting (BIOS 341, UNC)**

**Categorical Data Analysis (BIOS 165, UNC)**

**Statistical Inference I & II (BIOS 161, UNC)**

**Base SAS and Advanced SAS programming (SAS Institute, Cary, NC)**

**GeneSpring (Workshop, UNC),**

### **PROFESSIONAL EXPERIENCES:**

2009- Present **Senior Statistical Programmer, ICON PLC.**

Work as a lead programmer in various clinical to develop and manage programs for use in generating mapping datasets (SDTM), analysis datasets(ADaM), summary and analysis tables, data listings, and figures; manage timelines for projects to ensure deadlines are met and project hours stay within projected Budget. Mentoring for junior programmers.

2008- 2009     **Statistical Programmer II, Kendle International, Inc.**

Work as a lead programmer in various clinical project (Phase I to Phase IV) to develop and manage programs for use in generating mapping datasets (SDTM), analysis datasets(ADaM), summary and analysis tables, data listings, and figures; manage budget and timelines for projects to ensure deadlines are met and project hours stay within projected Budget. Assists in the preparation of submissions of electronic data (e.g., SAS® data sets) to regulatory agencies. Contribute strategic initiative by developing Job aid for CDISC and ADaM Standards. Mentoring for junior programmers. The Performance Evaluation by Management Team for the period from 2008 to 2009 was evaluated to be a ‘Top Performer’.

2007- 2008     **Statistical Programmer II, PRA International, Inc.**

Work as a team lead to ensure the success of the analysis programming aspects of the project; ensure that the tables, listings, and figures that require analysis programming as described in the analysis plan have been produced and quality-controlled; communicate key issues to the programming team members; attend all relevant project team meetings and review all documentation associated with a project in order to keep abreast of developing project issues; meet project time lines and milestones that have been set and ensure that any concerns regarding these time lines are brought to the attention of the project team; communicate analysis programming issues to the team when they may affect other team members.

2005, Mar-     **Research Associate, Center for Environmental Medicine, Asthma and**  
2007, Apr.     **Lung Biology, University of North Carolina at Chapel Hill     Research**

Provide statistical programming support of analysis datasets, Perform and communicate statistical issues/results to the project team for the clinical trial in both written and verbal form. Conduct research in the genomic area and Perform microarray data analysis.

2002, Oct     **Research Associate, Carolina Cardiovascular Biology Center**  
--2005, Mar     **University of North Carolina at Chapel Hill**

Conduct research in cardiovascular research area.

1987-1994      Research Associate and Lab manager, Biotechnology Research Center  
Chinese academy of agricultural Sciences, Beijing

### **SELECTED PUBLICATIONS:**

**Dongsun Cao**, Philip A Bromberg, and James M Samet. **2009.** Diesel Particle-induced Transcription Expression of P21 Involves Activation of EGFR, SRC and STAT3. **Am. J. Respir. Cell Mol. Biol.** Published ahead of print on March 27, 2009

Chen JF, Wang S, Wu Q, **Dongsun Cao**, Nguyen T, Chen Y, Wang DZ., **2008.** Myocardin marks the earliest cardiac gene expression and plays an important role in heart development. **Anat Rec (Hoboken).** 291(10):1200-11.

Weidong Wu, Silbajoris RA, **Dongsun Cao**, Bromberg PA, Zhang Q, Peden DB, Samet JM., **2008.** Regulation of cyclooxygenase-2 expression by cAMP response element and mRNA stability in a human airway epithelial cell line exposed to zinc. **Toxicol Appl Pharmacol.** 231(2):260-6.

**Dongsun Cao**, Philips Bromberg, and James Samet, **2007.** COX-2 expression induced by diesel particles involves chromatin modification and degradation of HDAC1. **Am J Respir Cell Mol Biol.** 37(2):232-9.

**Dongsun Cao**, Tamra Tal, Phil Bromberg, Lee graves, William Reed, and Jim Samet **2006,** Oxidative stress mediate Diesel exhaust particle induced phosphorylation of Stat3 through EGFR and Src in pulmonary epithelial cells. **Am J. Physiol.** 292:L422-L429.

Yu-Mee Kim, **Dongsun Cao**, William Reed, Weidong Wu, Robert Sibajoris, Illona Jasper, Philips Bromberg, and James M. Samet. 2006 Zn(2+)-induced NF-kappaB-Dependent transcriptional activity involves site-specific p65/RelA phosphorylation., **Cell Signal**, 19:538-546.

Weibin Xing, Tong-cun Zhang, **Dongsun Cao**, Zhigao Wang, Christopher L Antos, Shijie Li, Yibin Wang, Eric Olson, Dazhi Wang. 2006, Myocardin induces cardiomyocytes hypertrophy. **Circulation Research** 98: 1089-1097.

**Dongsun Cao**, ZhigaoWang, Chun-li Zhang Jiyeon Oh, Weibin Xing, Shijie Li, James A Richardson, Dazhi Wang and Eric N Olson (2005) Modulation of smooth muscle gene expression by association of histone acetyltransferase and deacetylase with myocardin, **Molecular and Cell Biology** 25: 364-376.

Ping Qiu, Raquel Ritchie, Zhiyao Fu, **Dongsun Cao**, Jerry Cumming, Joseph M. Miano, DaZhi Wang, Hui J. Li and Li Li. 2005, Myocardin enhances Smad3-Mediated transforming growth factor- $\beta$ 1 signaling in a CarG box-independent manner, **Circulation Research** 97: 983-991.

Thomas Callis, **Dongsun Cao**, Dazhi Wang 2005, Bone morphogenetic protein (BMP)

signaling modulates Myocardin transcriptions of cardiac genes. **Circulation Research**, 97: 992-1000.

Arthur E. Frankel, Philip D. Hall, **Dongsun Cao**, Tie Fu Liu, Marlena Moors, Kimberley A. Cohen, Andrew M. Thorburn, and Robert J. Kreitman (2004) GM-CSF Receptor Targeted Therapy of Human Leukemia, in Cytotoxins and Immunotoxins for Cancer Therapy: Clinical Applications. Ed Kawakami, Koji. CRC - TAYLOR & FRANCIS Publisher

**Dongsun Cao**, John E Froehlich, Hui Zhang, and Chi-Lien Cheng (2003) The chlorate-resistant and photomorphogenesis defective mutant *cr88* encodes a chloroplast-targeted HSP90. **Plant J.** 33:107-118.

**Dongsun Cao**, Yun Lin and Chi-lien Cheng, 2000, Genetic interactions between the chlorate-resistant mutant *cr88* and the photomorphogenic mutants *cop1* and *hy5*. **Plant Cell** 12:199-210.

### **TEACHING EXPERIENCES:**

1997-2002: Principle Biology II, Teaching Assistant

### **HONOURS AND PROFESSIONAL SOCIETY:**

1987-1990	Post-Graduate Fellowship
1993-1994	“Marie Curie” Fellowship, European Commission
1994-1996	Graduate Assistantship, Louisiana State University
1997, 1999	University of Iowa Vice-president Research Travel Fund
1996-2001	“Cone” Summer Fellowship, University of Iowa
	Member of Society of Carolina Toxicology

### **REFERENCES**

James Samet, Ph.D. Professor, US EPA Phone: 919-966-0665. Email: Samet.James@epamail.epa.gov

Vanessa Beddo, Ph.D. Senior Statistician, Kendle International Inc. Phone: 919-257-6638. Email: [Beddo.Vanessa@iconplc.com](mailto:Beddo.Vanessa@iconplc.com)

Benjamin Frierson, M.S. Associate Director, Boehringer-Ingelheim Inc..Email: [friersonben@gmail.com](mailto:friersonben@gmail.com)