

Melodee K. Patterson
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PROFILE

A unique, enthusiastically gathered combination of administrative, computer, and laboratory skills: Research Associate skilled in microbial library construction; Bioinformatician with background in computer programming; Self-employed Virtual Assistant and Desktop Publisher; Office Manager for biotech start-up; energetic self-starter with excellent analytical, organizational, and creative skills.

CORE SKILLS

Microsoft Word, Excel, Access, PowerPoint
Adobe Pagemaker, Illustrator, Photoshop
Office management
Database creation and maintenance
Perl, Unix shell scripting
Bioinformatics tools: BLAST, PubMed,
ClustalW, and others.

DNA isolation and purification
PCR
Agarose and pulsed field electrophoresis
Growth and maintenance of SF9 cells
Oligo synthesis using Expedite Synthesizer
Lab training
Positive attitude

PROFESSIONAL EXPERIENCE

Short-term Solutions, LLC, Madison, Wisconsin

2006 – present

Self-employed Virtual Assistant

- Provide start-up/small companies with a unique blend of scientific, computer, and office services.
- Clients include

Lucigen Corp. – bacterial and viral metagenomic bioinformatics

Vitae, LLC – microfluidic device production

WiCell – scientific article graphic creation

Home Improvement Supervisor – variety of business support and research

StoryBridge.tv – variety of business support and research

Bur Oak Designs – brochure design, website updates

Human Resources Group – Excel support

Customer Analyses Services – bulk mail research

Planned Spontaneity – Filemaker Pro support

The QTI Group, Madison, Wisconsin

2006 – present

Website Coordinator/Part-time

- Prepare job listings for website.
- Assess resumés and communicate with potential employees.

NimbleGen Systems, Madison, Wisconsin

2005 – 2006

Bioinformatician/Microarray Analyst

- Designed and analyzed microarray experiments using in-house tools, Perl and shell scripts in Windows and Unix environments.

Lucigen Corporation, Middleton, Wisconsin

2000 – 2005

Bioinformatician

- Consulted with researchers to analyze problems, recommend technology-based solutions, and design computational strategies for the support of R&D and enzyme discovery.
- Designed and implemented biocomputing tools and biological databases for data analysis.

Lab Manager

- Planned and implemented lab policies, procedures, and services to ensure efficient lab operations.
- Trained and supervised lab interns in basic molecular biology techniques.

Research Associate

- Developed unique protocol for competent cell preparation (E. coli DH10B) resulting in highest known electrocompetent efficiency of 5×10^{10} CFU/ μ g, providing company's largest source of income.
- Constructed and sequenced microbial shotgun libraries.
- Gained expertise in, and provided training for specialized lab equipment.

Office Manager

- Processed orders, answered phones, and other administrative duties.
- Developed and maintained order entry, and customer service databases.

CHIMERx, Madison, Wisconsin**1997 – 2000*****Lab Technician***

- Performed molecular biology techniques on both E. coli and Sf9 cells including protein purification, and radioactive labeling assays.
- Prepared and sterilized solutions, media, and glassware.

Hellenbrand Water Conditioners, Inc., Waunakee, Wisconsin**1992 – 1996*****Desktop Publisher***

- Designed, wrote and produced sales literature, manuals, ads, and other promotional materials.
- Designed and implemented various databases.

Receptionist

- Received, screened and transferred telephone calls, processed quotes, maintained supply room.

Micro Designs, Waunakee, Wisconsin**1989 - 1996*****Self-employed Desktop Publisher***

- Designed and produced camera-ready art for promotional materials.

American Family Insurance Group, Madison, Wisconsin**1975 - 1989*****Information Center Analyst***

- Evaluated and recommended hardware and software to meet user objectives.

Development Analyst

- Performed system analysis, design, coding and implementation of computer based system converting 7 million individual-based policy, claim, and billing records household-based records. Saved over \$300,000 in mailing costs alone in the first year of operation.

Programmer

- Programmed, tested and documented COBOL, NATURAL/Adabas, Quickjob and MVS/JCL programs.

EDUCATION

- Bachelor of Science in Interdisciplinary Studies (Life Sciences, Business, Behavioral Science, Computer Science), Ellis College. June 2008.
- Bioinformatics Certificate, MATC - Madison. May 2005.
- NCBI 5-day “Advanced Workshop for Bioinformatics Information Specialists” August 2004.
- Biotechnology Laboratory Technician Associate Degree, MATC - Madison 1998.

HONORS / AWARDS

- MATC Dean's List, Academic Honors, 3.8 GPA. 1998
- CUNA Mutual Foundation / C.F. Eike, Jr. Scholarship recipient. 1998
- Beihoff Scholarship recipient. 1998

PUBLICATIONS

T. Schoenfeld, M. Patterson, P. Richardson, E. Wommack, M. Young, and D. Mead. **Assembly of Viral Metagenomes from Yellowstone Hot Springs**. Applied and Environmental Microbiology, July 2008, p. 4164-4174.

D. Mead, T. Schoenfeld, M. Patterson, and R. Godiska. **Multiplex Sequencing from a Multiplex Cloning Vector**. Genome Sequencing and Biology symposium, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY (2002).

R. Godiska, M. Patterson, T. Schoenfeld, and D. Mead. **Beyond pUC: Vectors for Cloning Unstable DNA in Optimization of the DNA Sequencing Process**, J. Kieleczawa (ed.). Jones & Bartlett Publishers (MA).

POSTERS

R. Godiska, M. Patterson, T. Schoenfeld, and D. Mead. **Construction of Genomic Libraries from “Unclonable” DNA.** 3rd Annual Conference on Advances in Genome Biology and Technology / Automation in DNA Mapping and Sequencing (AGBT/ASM), Marco Island, FL (2002). ASM & TIGR 2nd Conference on Microbial Genomes, Las Vegas, NV (2002).

D. Mead, T. Schoenfeld, M. Patterson, M. Cushion, R. Baric, R. Godiska. **High Stability Vectors for Cloning Unstable DNA.** 10th Annual International Meeting on Small Genomes, Lake Arrowhead, CA (2002). 14th International Genome Sequencing & Analysis Conference (The Institute for Genome Research), Boston, MA (2002). Plant and Animal Genome XI Conference, San Diego, CA (2003). American Society for Microbiology, Washington, D.C. (2003).

T. Schoenfeld, F. Rohwer, R. Godiska, M. Patterson, L. Sheets, and D. Mead. **Community Genomics Of A Boiling Thermal Pool.** American Society of Limnology and Oceanography, Salt Lake City, UT (2003).

T. Schoenfeld, L. Sheets, M. Patterson, R. Godiska, and D. Mead. **Single Cell Genomics of Hyperthermophiles.** Society of Industrial Microbiologists, Minneapolis, MN (2003). 11th International Conference on Microbial Genomes, Durham, NC (2003).

D. Mead, M. Patterson, T. Schoenfeld, R. Baric, M. Ito, F. Rohwer, and R. Godiska. **High Stability Vectors for Cloning Picogram Amounts of Unstable DNA.** American Society for Virology, Davis, CA (2003). Plant and Animal Genome XII Conference, San Diego, CA (2004). American Association for Cancer Research, Orlando, CA (2004).

M. Patterson, T. Schoenfeld, M. Breitbart, F. Rohwer, M. Young, P. Richardson, and D. Mead. **Phage Community Genomics of Thermal Aquifers.** Molecular Genetics of Bacteria and Phages, Madison, WI (2005).

D. Mead, M. Patterson, L. Sheets, and R. Godiska. **Unbiased Cloning Vectors and Methods.** American Society for Microbiology (2005).

P.J. Brumm, M. Patterson, and D. Mead. **Environmental Adaptations in Novel Bacillus Species Isolated from a Boiling Thermal Pool.** (2005).

T. Schoenfeld, V. Dodda, R. DiFrancesco, M. Patterson, M. Young, P. Richardson, and D. Mead. **Viral Community Genomics of Thermal Aquifers and Improved DNA Polymerases.** Metagenomics Conference (2007).

T. Schoenfeld, V. Dodda, M. Patterson, N. Hermersmann, and D. Mead. **Improved DNA Polymerases for DNA Amplification and Sequencing.** Plant and Animal Genome Conference (2008).

T. Schoenfeld, M. Patterson, P. Richardson, E. Wommack, M. Young, and D. Mead. **Assembly of Viral Metagenomes from Yellowstone Hot Springs.** Advances in Genome Biology and Technology (2008).