

Application Form

Profile

Sara J Gurdian
 First Name Middle Initial Last Name

Home Address Suite or Apt
 San Pablo CA 94806
 City State Postal Code

Primary Phone

Email Address

Which supervisorial district do you live in?

District 1

Education

Select the option that applies to your high school education *

High School Diploma

College/ University A

Name of College Attended

Contra Costa College

Degree Type / Course of Study / Major

Associates of Science for Transfer(In Progress)

Degree Awarded?

Yes No

College/ University B

Name of College Attended

Degree Type / Course of Study / Major

Degree Awarded?

Yes No

College/ University C

Name of College Attended

Degree Type / Course of Study / Major

Degree Awarded?

Yes No

Other schools / training completed:

Course Studied

Hours Completed

Certificate Awarded?

Yes No

Board and Interest

Which Boards would you like to apply for?

Hazardous Materials Commission: Submitted

Seat Name

Environmental Justice Seat

Have you ever attended a meeting of the advisory board for which you are applying?

Yes No

If you have attended, how many meetings have you attended?

Please explain why you would like to serve on this particular board, committee, or commission.

I would like to be part of this commission to be able to represent the underserved cities I live and work in. For about the past 5 years, I've been an active member of my community, participating in numerous community-led initiatives. One of them being the North Richmond Quality of Life Plan, which I helped co-write and envision along with community members. As part of the work in North Richmond, I attended the North Richmond 2040 Climate Resiliency Community meeting, where I was able to provide important feedback regarding the North Richmond Profile, such as requesting more specific asthma and mortality rate charts in North Richmond as well as recommending they adopt green infrastructure strategies found in our Quality of Life Plan. Communities like Richmond, San Pablo and North Richmond are actively compromised by Chevron Refinery's pollution exposure, heavy industrial warehouses and being near major interstates. My work with the North Richmond Leadership Team through Healthy Richmond has given me opportunities to bring community members together and facilitate meetings where community goals are developed, along with plans on how to reach those goals.

Qualifications and Volunteer Experience

I would like to be considered for appointment to other advisory boards for which I may be qualified.

Yes No

Are you currently or have you ever been appointed to a Contra Costa County advisory board, commission, or committee?

Yes No

List any volunteer or community experience, including any advisory boards on which you have served.

I am a current member of the North Richmond Resident Leadership Team, which resulted in the Quality of Life Plan and was developed in 2019 by a group of 10 residents including myself. As a team we have been in close communication with Supervisor John Gioia, the County's Planning and Health Departments to further continue the conversation about environmental justice issues that connect with health, the built environments and local policies. I have also been part of the Business and Housing Justice projects which include North Richmonds's Housing Authority plans to redevelop the Las Deltas Public Housing Project. It is important for residents to be involved in the process to make sure we create equitable development of Las Deltas. Also, in March of 2018, I sat on the Advisory Board for Resilient By Design. This is a community resident and stakeholders board that worked to design a self-sustainable community model. The Resilient By Design team came up with a tree conservation forest, open natural paths to the Bay Area Trail, and housing parcels high above ground in regards to sea level rise. Lastly, Urban Habitat's Boards and Commissions Leadership Institute. A fellowship that pertains to a 6 month training on topics of Land use, Transportation and Housing Justice through an equity lens, and commissioner skills of the Brown Act and Robert's Rules.

Describe your qualifications for this appointment. (NOTE: you may also include a copy of your resume with this application)

In 2019, I completed a six-month intensive training as part of a fellowship with Boards and Commissions Leadership Institute (BCLI) at Urban Habitat. The training exposed me to equitable land use practices, housing rights, and transportation justice policies. I learned how to equitably analyze a policy proposal, as well as the nuts and bolts of running public meetings, such as Robert's Rules of Order and the Brown Act. I applied these skills and knowledge to my community work with stakeholders in the implementation of our Quality of Life Plan. As an alum of the BCLI, Urban Habitat has committed to support me in my journey as a future commissioner. They are a team of professionals who have expertise in the fields of climate justice, housing and transportation. I also work very closely with Healthy Richmond, which has also committed to potentially connecting me with their great network of local leaders who are part of the BAAQMD AB-617 air monitoring project. In addition, as outreach coordinator for an environmental non-profit organization in Richmond called The Watershed Project, this position has given me the skills to develop targeted strategies to engage local cities mainly Richmond, and North Richmond to its watershed through environmental education on green infrastructure and hands-on events, which consist of planting native species in our neighborhoods.

[Resume_2020_SG.docx.pdf](#)

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Conflict of Interest and Certification

Do you have a Familial or Financial Relationship with a member of the Board of Supervisors?

Yes No

If Yes, please identify the nature of the relationship:

Do you have any financial relationships with the County such as grants, contracts, or other economic relations?

Yes No

If Yes, please identify the nature of the relationship:

Please Agree with the Following Statement

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge and understand that all information in this application is publicly accessible. I understand that misstatements and/or omissions of material fact may cause forfeiture of my rights to serve on a board, committee, or commission in Contra Costa County.

I Agree

SARA GURDIAN

San Pablo, CA |

SUMMARY OF SKILLS

- Bilingual English/Spanish
- Community Building
- Project Managing
- Facilitate Community Meetings
- Local Non-Profit Partnerships
- Communication Skills

EDUCATION

Contra Costa College, San Pablo, CA In Progress
Associate of Science for Transfer – Liberal Arts: Science, Technology, Engineering and Mathematics

PROFESSIONAL EXPERIENCE

Outreach Coordinator April 2019-Present
The Watershed Project, Richmond, CA

- Attend and present at Contra Costa County, City of Richmond and North Richmond Municipal Advisory Council meetings in order to strategize on local programs
- Conduct outreach for community projects pertaining to current programs
- Develop publicity and outreach materials such as newsletter articles, flyers, and presentations
- Assist with managing and updating websites, social media, and calendars.
- Assist with planning and leading events such as MLK Day, Earth Day, Coastal Cleanup Day, and Bubbles & Bivalves

The Watershed Project- Green Collar Corps (GCC) - 2016-2019

- Vegetation management, upkeep at local parks in San Pablo, Richmond, and North Richmond
- Assisted with the construction and maintenance of rain gardens, bioswales, and other projects
- Maintained and cultivated plant nursery
- Conducted community outreach, volunteer recruitment and management

LEADERSHIP EXPERIENCE

North Richmond Resident Leadership Team 2018-Present
Healthy Richmond Richmond, CA

- Outreached to over 150 North Richmond residents to understand the needs, difficulties, and strengths of the area in order to compile data and establish a Quality of Life Plan
- Co-writer of The Quality of Life Plan
- Participated in the North Richmond Case Study
- Met with the Contra Costa County's Planning Department, Public Works Department, Health Department, District 1 County Supervisor- John Gioa

**Urban Habitat Boards and Commission Leadership Institute- June 2019 Alumni
Oakland, CA**

- A six-month BCLI fellowship, which teaches advocates how to understand complex and intersecting policy arenas, navigate the culture and language of commissions, and build effective relationships inside and outside the commission.

Resilient By Design (CAB) Community Advisory Board, 2018

- Act in an advisory capacity to the Resilient By Design Home Team throughout the planning and design process
- Shared my points of view, and provided feedback on work products in the form of recommendations;
- Reviewed meeting material and completed work products in advance of a scheduled meeting;
- Serve as ambassadors to the greater community by informing the community of the process, encouraging their participation in workshops, and playing an active role in workshops and outreach events

Wildcat Creek Visioning Committee, 2018-2019

- As part of this residents and stakeholders committee, we have focused to establish a vision for Wildcat Creek and future development alongside West County Supervisor John Gioa, West County Flood Control District, EBRP, amongst other local non-profits

North Richmond Shoreline Working Group, 2019

- As a local community leader interested in protecting shoreline infrastructure, public/private assets, environmental health, and public accessibility
- The main goal is to seek consensus on the viability and general alignment of a setback levee as a cost-effective strategy for this long-term protection

Healthy Richmond Sustainability Task Force, 2019

- Partner with Healthy Richmond to oversee the organization's initiatives and to ensure its proactive sustainability.
- Networking with other residents to analyze the impacts of strategic planning through collaborative efforts

Voting Polls Clerk Contra County Elections, 2018 San Pablo, CA

- Manage and assist new poll clerk worker voter data process.
- Distribute and verify provisional ballot and provide the voter with registration information
- Count and consolidate ballot numbers and provide relevant data for election results.

Application Form

Profile

Heather

First Name

Middle Initial

Youngs

Last Name

Home Address

Suite or Apt

Richmond

City

CA

State

94805

Postal Code

Primary Phone

Email Address

Which supervisorial district do you live in?

District 1

Education

Select the option that applies to your high school education *

High School Diploma

College/ University A

Name of College Attended

Michigan Technological University

Degree Type / Course of Study / Major

B.S. Biology

Degree Awarded?

Yes No

College/ University B

Name of College Attended

Oregon Health & Sciences University

Degree Type / Course of Study / Major

.....
Ph.D. Biochemistry & Molecular Biology

Degree Awarded?

.....
 Yes No

College/ University C

Name of College Attended

.....
Degree Type / Course of Study / Major

Degree Awarded?

.....
 Yes No

Other schools / training completed:

Course Studied

.....
Hours Completed

Certificate Awarded?

.....
 Yes No

Board and Interest

Which Boards would you like to apply for?

.....
Hazardous Materials Commission: Submitted

Seat Name

.....
Environmental Justice Seat

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.....
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.....

Please explain why you would like to serve on this particular board, committee, or commission.

I have lived in El Cerrito and Richmond for 11 years. I became interested in the County's approach to environmental health and justice following a major incident at Chevron's Richmond Refinery and the subsequent discussions about facility upgrades. I attended meetings by phone and in person and was impressed with the thoughtful approach and clear communications despite a charged political atmosphere. I'd like to contribute what I can to help my community with issues related to environmental health and safety.

Qualifications and Volunteer Experience

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Yes No

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Yes No

List any volunteer or community experience, including any advisory boards on which you have served.

I have served on the following committees: Scientific Advisory Committee Member – Implementation of AB1504 “Carbon Sink Act”, California Board of Forestry (2014-2016), Advisory Board Member – Berkeley Energy & Resources Collaborative (2014-2016), Advisory Board Member – Carbon Mitigation Project, Princeton University (2014-2016), Rapid Assessment Programme Working Group Member – Scientific Committee on Problems of the Environment (SCOPE) International Biofuels Project (A SCOPE-UNESCO-UNEP partnership) (2013-2015), Biofuels Group Lead – California's Energy Future Task Force, California Council for Science and Technology, (2009-2012)

Describe your qualifications for this appointment. (NOTE: you may also include a copy of your resume with this application)

I have a Ph.D. in biochemistry and worked for 7 years on alternative energy at UC Berkeley, which included interacting with stakeholders and policy makers, understanding both technical and economic information, as well as environmental impacts (chemistry, ecology, and lifecycle assessment). I also served as editor of a magazine to communicate complicated scientific ideas to the public on politically charged and controversial issues. I feel I could make a meaningful contribution to the Hazardous Materials Commission.

[YoungsCV2020.docx](#)

Upload a Resume

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I Agree

Curriculum Vitae

Heather Lynne Youngs

Education

Post-doctoral Fellow, Stanford University (2003-2005)
Ph.D. of Biochemistry & Molecular Biology, Oregon Health Science University (1996-2003)
Andrews Fellow, Purdue University, Department of Botany and Plant Pathology (1994-1995)
B.S. in Biological Science cum laude, Michigan Technological University (1992-1994)

Positions Held

Program Officer, Scientific Research – Open Philanthropy (2016-present)
Director of the Bakar Fellows Program – Office of the Vice Chancellor of Research
University of California, Berkeley CA (2015-2016)
Senior Bioenergy Analysis Fellow – Energy Biosciences Institute
University of California, Berkeley CA (2009-2016) (Team Leader 2012-2016)
Adjunct Professor - Department of Biological Sciences
Michigan Technological University (2009-2012)
Assistant Professor - Department of Biological Sciences
Michigan Technological University, Houghton MI (2005-2009)
Adjunct Faculty - Department of Chemistry
Portland University, Portland OR (1999-2000)

Other Positions

Partner – Ninole Cacao, LLC (2016-present)
Board Member – Red Leaf Biologics (2014-present)
Executive Editor – Bioenergy Connection (2013-2015)
Contributing Editor – Bioenergy Connection (2011-2013)

Fellowships and Awards

CASE Bronze Circle of Excellence Award (2015) Bioenergy Connection Bioeconomy Issue
FOLIO Award for Editorial Excellence (EDDIE) (2014) Bioenergy Connection Forest Issue
FOLIO Digital Award for Design Excellence (WEBBIE) (2014) Bioenergy Connection Forest Issue
CASE Bronze Circle of Excellence Award (2014) Bioenergy Connection Forest Issue
NIH Fellowship – Stanford Genome Training Grant (2003-2005)
Vera Rubin Award – Carnegie Institution (2002)
Outstanding Student Award – Oregon Health & Science University (2001)
Outstanding Student Nominee – Oregon Health & Science University (2000)
Frederick N. Andrews Fellowship – Purdue University (1994)
Sigma Xi Undergraduate Research Grant (1993)
Michigan Competitive Scholarship (1992-1994)

External Working Groups and Advisory Positions

Scientific Advisory Committee Member – Implementation of AB1504 “Carbon Sink Act”, California Board of Forestry
(2014-2016)
Advisory Board Member – Berkeley Energy & Resources Collaborative (2014-2016)
Advisory Board Member – Carbon Mitigation Project, Princeton University (2014-2016)
Rapid Assessment Programme Working Group Member – Scientific Committee on Problems of the Environment (SCOPE)
International Biofuels Project (A SCOPE-UNESCO-UNEP partnership) (2013-2015)
Biofuels Group Lead – California's Energy Future Task Force, California Council for Science and Technology, (2009-2012)

Current Activities (Open Philanthropy)

How do we do the most good with limited resources? My role as a program officer at Open Philanthropy requires me to ask this question every day. My team oversees a budget of \$50M per year. We are committed to investing in research and innovation that impacts the most people per dollar spent. Our programs must meet three criteria: impact, tractability and neglectedness. Areas we fund include: atherosclerosis, pandemic preparedness, antivirals, vaccines, diagnostics, immunology, Alzheimer's disease, pre-term birth, aging, mental health, scientific tools, and science policy.

Previous Activities (UC Berkeley)

As director of the Bakar Fellows Program, my role was to facilitate UC Berkeley's world-class faculty in translating important scientific discoveries into practical solutions. I helped fellows think strategically about how to position their solutions including everything from intellectual property to forming start-up companies. My role was to help them connect with other entrepreneurs, advisors and potential funders.

As head of the Bioenergy Analysis Team at the Energy Biosciences Institute at UC Berkeley, my role was to deeply understand the development of bioenergy in the context of energy access and security, climate change, and long-term economic, social, and environmental sustainability. My team synthesized information across the entire bioenergy knowledge space, including research topics as next-generation feedstock production, biochemical/chemical conversion processing, socio-economic and environmental impacts. I also played a strategic role in the management team of the institute: guiding funding decisions on all proposed research (30 to 100 proposals each year), assessing progress of all projects and programs (nearly 200 hours of reviews each year) and coordinating workshops and other activities that helped shape the 10-year, \$350M research portfolio. In addition, I answered external inquiries, provided expert analysis to policy makers, and performed critical reviews of internal and external papers and proposals.

Previous Research Projects as Principal Investigator

Water and Bioenergy: Bioenergy production is critically dependent on water resources for both feedstock production and processing. Most discussion of sustainable bioenergy has a fixed focus on greenhouse gas emissions (mainly carbon) and climate mitigation. However, integrating bioenergy sustainably into watersheds is much more complicated than estimating GHGs. At the Energy Biosciences Institute I was responsible for bringing attention to water-related issues in the Institute and forming a liaison with the water experts at BP. I coordinated several workshops and strategic whitepapers on the subject, including model assessment.

The role of functional domains in cellulose synthase-like (CSL) genes: The cellulose synthase superfamily of proteins is directly responsible for synthesizing the bulk of plant biomass. My research group examined functional redundancy and putative zinc binding in one CSL family using promoter-gene constructs to complement the root hairless mutant *kojak* (CSLD3). Prashant Swamy, PhD project

The role of plant cell wall chemomechanical properties: Root hairs are large epidermal cells that play an important role in providing water and nutrients to plants. My group used these unique cells as a model system to analyze the relationship between cell wall composition and emergent mechanical properties, which could lead to biomass engineered for better processing efficiency. Collaboration with Forschungszentrum Jülich.

The role of myb-family transcription factors in root hair development: Overexpression of the myb-family transcription factor, *propecia* (PCA), rescues the Arabidopsis root-hairless mutant, *kojak*. My group used a variety of techniques to understand this effect. Kate Tay, MS Thesis 2008

Extracellular peroxidases in biomass utilization: Extracellular plant peroxidases are believed to oxidize lignin monomers for polymerization. My group was isolating homozygous knockout lines for over 50 different peroxidases in the model plant Arabidopsis thaliana in order to understand how lignin formation might relate to utilization of biomass for biofuel production. Michael Korner, Undergraduate Project 2007

The evolutionary origin of matrix metalloproteinases in plants: Matrix metalloproteinases (MMPs) are important modulators of extracellular matrix (ECM) structure in mammals. My group examined phylogenetic and expression data to examine possible functions for MMPs in plants. Yan Ding, MS Thesis 2007

Development of glycomimetic peptides as novel biochemical tools in carbohydrate research: Complex carbohydrates are notoriously difficult to synthesize. Novel tools are needed to evaluate carbohydrate-binding proteins. Our first project was to use phage display technology to develop peptides that act as "glycomimics". Evan Milton, Undergraduate Honors Project 2006; John Buzzo, Undergraduate Honors Project 2008

Post-doctoral Research

Cell wall biogenesis in Arabidopsis. Reverse genetic approach to identifying the function of putative processive glycosyl transferases. (2002-2005) Advisor: Chris Somerville, Carnegie Institution of Washington, Stanford University

Doctoral Research

Biophysical and mechanistic studies of the extracellular fungal heme enzyme, manganese peroxidase. (1996-2003)
Advisors: Thomas Loehr (retired) and Michael Gold (retired), OHSU (OGI) Department of Biochemistry and Molecular Biology (now Department of Environmental Biosciences)

Pre-doctoral Research

Studies of nicotine and morphine in the induction/repression of apoptosis in human small cell lung cancer. (1995-1996)
Principal Investigator: Rhoda Maneckjee, OHSU Department of Surgery

Cytoskeletal/cell wall interactions in tobacco. (1994-1995) Advisor: Nicholas Carpita, Purdue University, Department of Botany and Plant Pathology

Red algal cell wall composition and adaptation to salinity. (1992-1994) Undergraduate Advisor: Michael Gretz, Michigan Technological University, Dept. of Biological Sciences

In-field observation of solitary bee emergence, nesting, foraging and flight behavior for the ELF Ecological Monitoring Project. (Summers of 1991, 1992) Undergraduate Advisor: Karen Strickler, Michigan State University, Department of Entomology

Publications

Book Chapters (Peer-Reviewed)

Youngs H, Berndes G, Ballester MVR, Cantarella H, Cowie AL, Jewitt G, Martinelli LA, & Neary D (2015) Bioenergy: Soils and water. in *Bioenergy & Sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72: 619-659.

Karp A, Netto PEA, Berndes G, Cantarella H, El-Lakany H, Estrada TEMD, Faaij A, Fincher GB, Huntley BJ, Ravindranath NHR, Van Sluys MA, Verdade LM, **Youngs H** (2015) Environmental and Climate Security. in *Bioenergy & Sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72: 139-182.

Souza GM, Verdade, LM, de Brito Cruz CH, Kaffka S, Osseweijer P, Somerville CR & **Youngs H** (2015) The much needed science: Filling the gaps for sustainable bioenergy expansion. In *Bioenergy & sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72:219-227.

Leal MRLV, Autrey LJC, Fungtammasan B, Karlen DL, de Carvalho Macedo I, von Maltitz G, Muth DJ Jr, Samseth J, de Souza ZJ, van der Wielen L, Youngs H (2015) Case studies. in *Bioenergy & Sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72:491-527.

Souza GM, Reynaldo L. Victoria RL, Luciano M. Verdade LM, Joly CA, Netto PEA, Cantarella H, Chum HL, Diaz-Chavez R, Fernandes E, Fincher G, Goldemberg J, Nogueira LAH, Huntley BJ, Johnson FX, Karp A, Leal MRLV, Lynd LR, de Carvalho Macedo I, Maciel Filho R, Massafra MP, Nassar AM, Nigro FEB, Patricia Osseweijer P, Richard TL, Saddler JN, Samseth J, Seebaluck V, Somerville CR, van der Wielen L, Van Sluys MA, Woods J & **Youngs H** (2015) Bioenergy numbers. In *Bioenergy & sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72: 28-57.

Souza GM, Victoria RL, Verdade LM, Joly CA, Netto PEA, de Brito Cruz CH, Cantarella H, Chum HL, Cortez, LAB, Diaz-Chavez R, Fernandes E, Fincher GB, Goldemberg J, Nogueira LAH, Huntley, BJ, Johnson FX, Kaffka S, Karp, A, Leal MRLV, Long SP, Lynd LR, de Carvalho Macedo I, Filho RM, Nassar AM, Nigro FEB, Osseweijer P, Richard TL, Saddler JN, Samseth J, Seebaluck V, Somerville CR, van der Wielen L, Van Sluys MA, Jeremy Woods J & **Youngs H** (2015) SCOPE

Bioenergy & sustainability: Technical Summary. In *Bioenergy & sustainability: Bridging the gaps* Souza GM, Victoria R, Joly C, Verdade L. (eds) Paris: Scientific Committee on Problems in the Environment – United Nations Educational, Scientific and Cultural Organization (SCOPE-UNESCO) 72: 9-25.

Youngs H (2012) The effect of stakeholder values on biofuel feedstock choices. in *Perspectives on Biofuels: Potential Benefits and Possible Pitfalls* Taylor C et al. (eds) ACS Symposium Series; American Chemical Society. Washington DC Chapter 3, pp. 29-67.

Youngs HL, Hamann T, Osborne E, Somerville C (2007) The cellulose synthase superfamily. in *Cellulose: Molecular and Structural Biology*, Brown and Saxena (eds) Springer Press. Chapter 3, pp. 35-48, .

Gold M, **Youngs HL**, Sollewijn Gelpke MD (1999) Manganese peroxidase. in *Manganese and its role in biological processes*. Sigel H, Sigel A (eds) Metal Ions in Biological Systems 37: 559-586.

Journal Articles (Peer-Reviewed)

Youngs H and Somerville C (2017) Implementing industrial-academic partnerships to advance bioenergy research: the Energy Biosciences Institute. *Current Opinion in Biotechnology* 45:184-190.

Somerville C and **Youngs H** (2014) How big is the bioenergy piece of the pie? Who cares – It's pie! *Biotechnology & Bioengineering* 111: 1717-1718.

Youngs H and Somerville C (2014) Best practices for biofuels. *Science* 344:1095-1096.

Sorek N, Yeats T, Szemenyei H, **Youngs H** and Somerville C (2014) The implications of lignocellulosic biomass structure and composition for the production of advanced biofuels. *Bioscience* 64 (3):192-201.

Davis S, Dietze M, DeLucia E, Field C, Hamburg S, Loarie S, Parton W, Potts M, Ramage B, Wang D, **Youngs H**, Long S (2012) Harvesting carbon from eastern US forests: Opportunities and impacts of an expanding bioenergy industry. *Forests* 3:370-397. doi:10.3390/f3020370.

Youngs Heather and C Somerville (2012) Development of feedstocks for lignocellulosic biofuels. *F1000 Biology Reports* 4:10. doi:10.3410/B4-10.

Davison Brian, Donohue Timothy, Gilna Paul, Keasling Jay D., **Youngs Heather** (2011) Commentary: Q&A Roundtable on US Bioenergy Research. *Industrial Biotechnology* 7(4): 264-266. doi:10.1089/ind.2011.7.264

Youngs Heather (2011) Energy Biosciences Institute. *Industrial Biotechnology* 7(4): 261-263. doi:10.1089/ind.2011.7.261.

Youngs H and Taylor C (2011) Biomass supply chains for a bioenergy future. *ASABE Resource* Jan/Feb p. 22.

Somerville C, **Youngs H**, Taylor C, Davis SC, Long S (2010) Feedstocks for lignocellulosic biofuels. *Science* 329:790-792.

Munirathinam Sundaramoorthy, **Heather L Youngs**, Michael H Gold and Thomas L Poulos (2005) High resolution crystal structure of manganese peroxidase: Substrate and inhibitor complexes. *Biochemistry* 44:6463-6470.

Chris Somerville, Stefan Bauer, Ginger Brininstool, Michelle Facette, Thorsten Hamann, Jennifer Milne, Erin Osborne, Alex Paredez, Staffan Persson, Ted Raab, Sonja Vorwerk and **Heather Youngs** (2004) Toward a systems approach to understanding plant cell walls. *Science* 306: 2206-2211.

Hamann T, Osborne E, **Youngs HL**, Mission J, Zimmerli L, Somerville C (2004) Global expression of CESA and CSL genes in Arabidopsis. *Cellulose* 11:279-286.

Assaad FF, Qui JL, **Youngs H**, Ehrhardt D, Zimmerli L, Kalde M, Peck S, Wanner G, Ramonell K, Somerville C, Somerville S, Thordal-Christensen H (2004) The PEN1 syntaxin defines a novel compartment upon fungal attack and is required for the timely assembly of papilla. *Molecular Biology of the Cell* 15: 5118-5129.

Youngs HL, Sollewijn Gelpke MD, Li D, Sundaramoorthy M, Gold MH (2001) The role of E39 in MnII binding and oxidation by manganese peroxidase from *Phanerochaete chrysosporium*. *Biochemistry* 40: 2243-2250.

Li D, **Youngs HL**, Gold MH (2001) Heterologous expression of a thermostable manganese peroxidase from *Dichomitus squalens* in *Phanerochaete chrysosporium*. *Archives of Biochemistry and Biophysics* 385: 348-356.

Youngs, HL, Moënné-Loccoz P, Loehr TM, Gold MH (2000) Formation of a bis(histidyl) heme iron complex in manganese peroxidase at high pH and restoration of the native enzyme structure by calcium. *Biochemistry* 39: 9994-10000.

Gelpke MDS, **Youngs HL**, Gold MH (2000) Role of arginine 177 in the Mn-II binding site of manganese peroxidase - Studies with R177D, R177E, R177N, and R177Q mutants. *European Journal of Biochemistry* 267 (24): 7038-7045.

- Youngs HL**, Gold MH (2000) Effects of cadmium on manganese peroxidase: Competitive inhibition of Mn(II) oxidation and thermal stabilization of the enzyme. *European Journal of Biochemistry* 267 (6): 1761-1769.
- Gold MH, Sollewijn Gelpke MD, **Youngs H**, Kishi K, Mayfield-Gambill M., Moenne-Loccoz P (1998) Expression and functional studies on lignin and manganese peroxidase. Proceedings of the 1998 7th International Conference on Biotechnology in the Pulp and Paper Industry Part 1 (of 3), Vancouver, Canada.
- Youngs HL**, Gretz MR, West JA, Sommerfeld MR (1998) The cell wall chemistry of *Bangia atropurpurea* (Bangiales, Rhodophyta) and *Bostrychia moritziana* (Ceramiales, Rhodophyta) from marine and freshwater environments. *Phycological Research* 46: 63-73.

White Papers and Press Articles (Non-Peer Reviewed)

- Youngs H** (2020) The science and coordination challenges in influenza vaccine development. Sabin Aspen Vaccine Science & Policy Group Report "Accelerating the development of a universal influenza vaccine." <https://www.influenzer.org/resources/sabin-aspen/the-science-and-coordination-challenges-in-influenza-vaccine-development>
- Youngs H** (2015) The bioeconomy is everywhere. *Bioenergy Connection* 3.1: 5-10.
- Youngs H** (2015) Northern Exposure: Cellulosic ethanol is not as new as it seems. *Bioenergy Connection* 3.1: 15.
- Youngs H** and Somerville CR (2013) California's Energy Future: The Potential for Biofuels. *A report to the California Council for Science and Technology*. (May) 1-55. <http://www.ccst.us/news/2013/0531cef.php>
- Gunda P and **Youngs H** (2013) Bioenergy and Water: Understanding Impacts. *MIT Energy Initiative and Center for Strategic International Studies*. Energy-Water-Land Nexus Workshop. (May 6-7) Washington, D.C. 1-46.
- Pietsch S and **Youngs H** (2013) Biofuels and water: Doing more with less. *Bioenergy Connection* 2(1):22-25.
- Youngs H** and Somerville C (2012) Growing better biofuel crops. *The Scientist*. July:46-52.
- Youngs HL** (2011) Waste-to-Energy in California: Technology, Issues, and Context. *A California Council on Science and Technology report to ground a joint workshop sponsored by the California Energy Commission and the California Department of Resources, Recycling and Recovery*. <http://www.ccst.us/news/2011/20111208wte.php>
- Youngs HL** (2011) California's surprising finding: Bioenergy's role in ambitious greenhouse gas reduction. *Bioenergy Connection* 1(2):6-8.
- Long J, John M, Greenblatt J, Wei M, Yang C, Richter B, Hannegan B, **Youngs H** (2011) California's Energy Future: The view to 2050. *A California Council for Science and Technology report to Governor Jerry Brown*. <http://www.ccst.us/publications/2011/CEF%20index.php>
- Youngs, HL** (2011) The path to commercialization...Are we there yet? *Bioenergy Connection Issue* 1(1):15-17.
- Taylor CM and **Youngs HL** (2010) Cane expansion in Brazil. Forecasting sugarcane ethanol production on agroecologically zoned cane land. *Internal Assessment Report*. EBI-BAT-AR3-2010.
- Taylor CM and **Youngs HL** (2010) Biogas for transportation. *Internal Assessment Report*. EBI-BAT-AR1-2010.
- Youngs HL** (2010) Woody Biomass: A quick snapshot of US and Global Resources. *Internal Assessment Report* EBI-BAT-AR2-2010.
- Youngs HL** and Taylor CM (2009) *Saccharum sp.* to ethanol via dual fermentation. Current to near-term technology, Louisiana-organic soil scenario, 2009. *EBI Scenario Series* EBI-BAT-S2 44p.
- Taylor CM and **Youngs HL** (2009) *Miscanthus x giganteus* to ethanol via dual fermentation. Current to near-term technology, 2009. *EBI Scenario Series* EBI-BAT-S1 26p.

Abstracts

- Youngs, HL** (2007) Understanding the role of chelators in the Mn peroxidase reaction mechanism: a closer look at kinetics and Mn speciation *FASEB JOURNAL* 21:A642-A642.
- Youngs HL**, Mauk G (2007) The Mn-binding site and newly identified C-terminal metal binding site both play important roles in the thermal stability of Mn peroxidase. *FASEB JOURNAL* 21: A276-A276

Protein Crystal Structures

- Sundaramoorthy M, **Youngs HL**, Gold MH, Poulos TL (2005) 1YYG: Manganese peroxidase complexed with Cd(II) inhibitor. *Biochemistry* 44: 6463-6470. Worldwide Protein Data Bank, <http://dx.doi.org/10.2210/pdb1yyg/pdb>

Sundaramoorthy M, **Youngs HL**, Gold MH, Poulos TL (2005) 1YYD: High Resolution Crystal Structure of Manganese Peroxidase. *Biochemistry* 44: 6463-6470. Worldwide Protein Data Bank, <http://dx.doi.org/10.2210/pdb1yyd/pdb>

Sundaramoorthy M, **Youngs HL**, Gold MH, Poulos TL (2005) 1YZP: Substrate-free manganese peroxidase. *Biochemistry* 44: 6463-6470. Worldwide Protein Data Bank <http://dx.doi.org/10.2210/pdb1yzp/pdb>

Sundaramoorthy M, **Youngs HL**, Gold MH, Poulos TL (2005) 1YZR: Manganese peroxidase-Sm(III) complex. *Biochemistry* 44: 6463-6470. Worldwide Protein Data Bank, <http://dx.doi.org/10.2210/pdb1yzz/pdb>

Presentations

Climate Policy and Innovation. International and Executive Programs, College of Natural Resources, UC Berkeley (Invited Talk, October 2014).

Biofuels Workshop. Understanding Advanced Biofuels. UC Berkeley Beahrs Environmental Leadership Program (Invited Talk, July 2014).

The Energy Biosciences Institute at Year 7. 36th Symposium on Biotechnology for Fuels and Chemicals (Invited Talk, April 2014).

Advances in Biofuels. DNV Top Tech Program, UC Berkeley Haas School of Business Executive Education Program (Invited Talk, April 2014).

The Blend Wall and Other Constraints (2014) 7th Annual Berkeley Bioeconomy Conference (Invited Talk, March 2014).

California's Energy Future: The potential for biofuels. UC Davis Policy Institute Bioenergy Webinar (Invited Talk, July 2013)

Bioenergy and Water: Understanding Impacts. Energy-Water-Land Nexus Workshop. MIT Energy Initiative and Center for Strategic International Studies Washington, D.C. (Invited Talk, May 2013)

Status of Commercial Lignocellulosic and Advanced Biofuel Efforts. Berkeley Energy & Resources Collaborative BERCshop Berkeley, CA (Invited Talk, April 2013)

There and back again. A scientist's journey. Oregon Health and Science University Alumni Dinner. Portland, OR (Invited Keynote, April 2013)

California's Energy Future: The Role of Biomass. California Renewable Energy and Storage Technology. Northridge, CA (Invited Talk, April 2013)

Bioenergy and Water. 6th Annual Berkeley Bioeconomy Conference. Berkeley, CA (Invited Talk, March 2013)

Bioenergy in California: Future Prospects. 3rd Pan-American Congress on Plants and Bioenergy (Invited Talk, July 2012)

Drop-In Biofuels. BIO - International Biotechnology Organization Convention. Boston, MA (Session Organizer and Panel Chair, June 2012)

Trends in Biofuels and the Next Generation of Biofuels. Novozymes (Invited Talk, June 2012)

Feedstock Properties and Pretreatment. EBI Strategic Directions for Pretreatment Workshop (Invited Talk, April 2012)

Commercial Development of Lignocellulosic Ethanol and Advanced Biofuels. Berkeley Bioeconomy Conference (Invited Talk, March 2012)

Enabling Continuous Processing in Lignocellulosic Fuel Production. Pacific West Biomass Conference. San Francisco, CA (January 2012)

Waste-to-Energy in California. Briefing of the LA County Solid Waste Management Committee/Integrated Waste Management Task Force on Waste-to-Energy Technologies and the LA Public Utilities Commission. Alhambra, CA (January 2012)

Waste-to-Energy in California: Technology, issues and context. Special stakeholder meeting, Governor's Office, Sacramento, CA (Keynote speaker, October 2011)

Lignin-degrading systems in Fungi. EBI-JBEI Joint Workshop on Lignin and Bioenergy (Workshop Organizer, July 2011)

Biomass and electricity. Charged 2020: The Global Renewable Energy Forum. (Invited Talk, July 2011)

Implementing AB32. Berkeley Energy & Climate Institute Steering Committee. Berkeley, CA (Invited Talk, June 2011)

A systems view of bioenergy. State of research at the Energy Biosciences Institute. BIO International Convention. Washington, DC (Invited Talk, June 2011)

Biofuels in California's Energy Future. Silicon Valley Energy Summit. Stanford, CA (Invited Talk, June 2011)

Biofuels in California. International Society for Industrial Ecology Conference. Berkeley, CA (Invited Talk, June 2011)

Challenges in meeting California's 2050 GHG goals. Public Radio Science Literacy Project. Berkeley, CA (Invited Talk, April 2011)

Bioenergy in California's Energy Future. Fourth Annual Berkeley Bioeconomy Conference. Berkeley, CA (Invited Talk, March 2011)

Potential for Sustainable Biofuels in California: Opportunities and Issues. Special Session: Portraits of the California Energy System in 2050: Cutting Emissions by 80 Percent. American Association for the Advancement of Science. Annual Meeting (Invited Talk) (February 2011)

Developing biofuel scenarios. Eighth Annual Bioenergy Feedstock Symposium. Champagne, IL (Invited Talk, January 2011)

Biogas markets and opportunities. Biogas USA Meeting. San Francisco, CA (Invited Talk) (October 2010)

Water footprints of biofuels. BP Environmental Sustainability Challenge – Water-Energy Footprint Workshop. Cambridge MA (Invited Talk, July 2010)

Scenario analysis of sugarcane, miscanthus, and others. (Looking Toward the Future) The Current Situation of Biofuel: Economics, Policy, Technology, and Research. 3rd Annual Berkeley Bioeconomy Conference. Berkeley, CA (Invited talk, co-presented with C. Taylor, June 2010)

Ethics and biofuels: Feedstock selection epitomizes conflicts in stakeholder values. (Session: Perspective on Biofuels: Potential Benefits and Possible Pitfalls) ACS National Meeting. San Francisco, CA (Invited Talk, March 2010)

Market Overview on Next Generation Feedstocks Development (Keynote Session) Next Generation Biofuels Feedstocks R&D Development. San Francisco, CA (November 2009)

Biomass: Polymers to Policy. Oregon Health and Science University. Portland, OR (Invited Talk, May 2009)

Media Interactions

Financial Times (May 21, 2020) Philanthropists play critical role in developing vaccines. <https://www.ft.com/content/847a9052-6847-11ea-a6ac-9122541af204>

KALW Public Broadcasting, San Francisco (May 2, 2016) Interview with Ethan Elkind. Should California recover more energy from municipal solid waste? <https://legal-planet.org/2016/05/02/should-california-recover-more-energy-from-municipal-solid-waste/>

New York Times (October 30, 2014) Interview with Beth Gardiner regarding biogas development and use. <https://www.nytimes.com/2014/10/30/business/energy-environment/biogas-low-tech-fuel-with-a-big-payoff.html>

KJZZ Public Broadcasting, Phoenix (January 10, 2014) Interview with Stina Sieg regarding development of algal biofuels. <https://www.npr.org/transcripts/301005600>

Los Angeles Times (November 18, 2013) Interview with Evan Halper regarding military funding of algal biofuels. <http://www.latimes.com/nation/la-na-green-military-20131118,0,6681167.story>

Oregon Public Broadcasting (January 16, 2013) Interview regarding waste-to-energy technologies.

Chicago Tribune (July 20, 2012) Interview regarding Coksata IPO and advanced biofuel commercialization.

EdenIQ Pilot Plant Opening (June 26, 2012) Panel Chair “Future Directions of Biofuels” with CEC Deputy Chair Pat Perez, USDA Rural Development State Director Glenda Humiston, venture capitalist John Rockwell, DOE Biomass Program Manager Glen Peterson, and EdenIQ CED Brian Thome.

AdFarm/Novozymes Media Event (June 20, 2012) Discussions with Agricultural Journalists from Farm Journal, Farm Progress Publications, Progressive Farmer, Corn & Soybean Digest, Farm Industry News, High Plains Journal, AgProfessional, AgAlert (CA), Western Farm Press, Capital Press, Brownfield Radio Networks, CBS Radio, AgriTalk, and Linder Farm Network.

International Biotechnology Organization (BIO) Media Tour (Jun 28, 2011) Interview panel with Paul Gilna (BESC) and Jim Lane (Biofuels Digest) regarding next-generation biofuel potential. Total audience 7.2 million viewers and listeners, airing on 300 local television and 350 local radio stations nationwide.

California Academy of Sciences (Jun 17, 2011) Science in Action This Week PodCast – The Future of Biofuels. <http://www.calacademy.org/sciencetoday/the-future-of-biofuels/>

The Bioenergy Site - Global Bioenergy (May 2011) Interview: Who’s leading, who’s following? by Sarah Mikesell <http://www.thebioenergysite.com/articles/833/global-bioenergy-whos-leading-whos-following>. The article was picked up in the June 17 issue Biofuels Supplement “Report lists who’s who” and reported by Crop Biotech Update <http://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=7988>

Renewable Energy World (May 23, 2011) Interview – Biofuel firms expand into beauty, nutraceutical products. by Ivan Castano <http://www.renewableenergyworld.com/rea/news/article/2011/05/biofuel-firms-expand-into-beauty-nutraceutical-products>

Renewable Energy World (May 6, 2011) Interview – Second generation biofuels gain traction but growth challenges remain by Ivan Castano <http://www.renewableenergyworld.com/rea/news/print/article/2011/05/second-generation-biofuels-gain-traction-but-growth-challenges-remain>

Science Blog (Mar 2011) Interview– Berkeley scientists highlight challenges of meeting state energy goals by 2050. <http://scienceblog.com/43276/berkeley-scientists-highlight-challenges-of-meeting-state-energy-goals-by-2050/> also picked up in Energy Technology News (March 3), Global Green World (March 2), Science Daily (May 24) and Solar Energy Blog (August 25)

Meetings & Conferences

United States Department of State International Visitor Leadership Program, Climate Change/Environment/Green Chemistry China (February 2015) (synthesis session chair)

American Geophysical Union. San Francisco, CA (December, 2014) (water poster session chair)

Department of Energy Quadrennial Technology Review (December, 2014) (invited participant)

Harvard Kennedy School, Workshop on Commercializing Second-Generation Biofuels. Cambridge, MA (November, 2014) (invited participant)

Brazilian BioEnergy Science and Technology Conference. Campos do Jordão, Brazil (October, 2014) (invited speaker)

Anaerobic Digestion & Biogas USA. San Francisco, CA (May 2014)

36th Symposium on Biotechnology for Fuels and Chemicals. Clearwater Beach, FL (April 2014) (invited speaker)

7th Annual Berkeley Bioeconomy Conference. Berkeley, CA (March 2014)

IEA-UNEP Bioenergy-Water Workshop. Paris, France (February, 2014)

UNESCO-SCOPE-UNEP International Biofuels Project Rapid Assessment. Paris, France (December 2013)

Advanced Biofuels Leadership Conference. San Francisco, CA (October 2013)

City of Berkeley Waste-to-Energy Roundtable. Berkeley, CA (June 2013)

MIT Energy Initiative and Center for Strategic International Studies – Water & Energy. Washington, DC (May 2013)

Berkeley Energy & Resources Collaborative "Can the US satisfy the renewable fuels standard?" BERCshop Berkeley, CA (April 2013)

California Renewable Energy and Storage Technology. Northridge, CA (April 2013)

6th Annual Berkeley Bioeconomy Conference. Berkeley, CA (March 2013)

Climate Smart Agriculture. Davis, CA (March 2013)

BIOEN-BIOTA-PFPMCF-SCOPE Joint Workshop on Biofuels and Sustainability. São Paulo, Brazil (February 2013)

Beyond the Water Wars: Collaborative Management Solutions for a Shared Resource. California Water Law Symposium. Davis, CA (January 2013)

American Geophysical Union. San Francisco, CA (December 2012)

University of California Water Quality, Quantity, and Security Strategic Initiative Meeting. Davis, CA (November 2012)

Strategic Workshop on Water and Bioenergy. Berkeley, CA (Organizer and Chair, October 2012)

Council of Energy Research and Education Leaders. Berkeley, CA (Session Chair, October 2012)

BIO - International Biotechnology Organization Convention. Boston, MA (Session Organizer and Panel Chair, June 2012)

Water in Bioenergy Agroecosystems Workshop. Chicago, IL (June 2012)

Council on Energy Research and Education Leaders – University-Federal Dialogue. Washington, DC (May 2012)

Water Use and Treatment: Improving Efficiency Through Technology. Houston, TX (May 2012)

University of California – California Air Resources Board Dialogue on GHG/Criteria Pollutant Transportation Scenarios. Davis, CA (May 2012)

Berkeley Bioeconomy Conference. Berkeley, CA (March 2012)

Pacific West Biomass Conference. San Francisco, CA (January 2012)

California Biodiesel & Renewable Diesel Conference. San Francisco, CA (January 2012)

Municipal Waste Conference. San Jose, CA (December 2011)

U.S. Department of Energy's Bioenergy Sustainability Workshop (October 2011) Urbana-Champaign, IL (Session Leader and Rapporteur)

American Association for the Advancement of Science. Annual Meeting (February 2011)
Eighth Annual Bioenergy Feedstock Symposium. Champagne, IL (Invited Talk) (January 2011)
BP ESC MIT Water-Energy Footprint Workshop. Cambridge MA (July 2010)
The Current Situation of Biofuel: Economies, Policy, Technology, and Research. 3rd Annual Berkeley Bioeconomy Conference (June 2010)
American Chemical Society Annual Meeting. San Francisco CA (March 2010)
BERC (Berkeley Energy Resources Collaborative) Symposium, Berkeley CA (March 2010)
US-UK Biofuels Workshop (British Consulate and Department for Transport), San Francisco CA (February 2010) (acted as discussion facilitators)
Roundtable on sustainable farming - California diversified growers. Berkeley CA (January 2010)
Tuft Data Presentation Workshop. San Francisco, CA (December 2009)
Google Next Energy Event. San Francisco, CA (November 2009)
Global Climate Energy Program Annual Meeting. Stanford, CA (September 2009)
UC Davis Sustainable Transportation Meeting, Asilomar, CA (July 2009)
EPA workshop on lifecycle GHG analysis for RFS (June 2009)
Biofuels in Developing Countries, 2nd Annual Berkeley Bioeconomy Conference. Berkeley (May 2009)
SIMS (Society Industrial Microbiology), San Francisco (May 2009)
International Biomass Conference and Tradeshow, Portland OR (April 2009)
2009 Annual Meeting Joint Genome Institute, Walnut Creek (March 2009)
California Air Resources Board hearings on Low Carbon Fuel Standard, Sacramento CA (April 2009-Jan 2010)
Penn State Cellulosic Biofuels Short Course, San Francisco (March 2009)
BERC (Berkeley Energy Resources Collaborative) Symposium, Berkeley CA (February 2009)
Somerville Symposium - "CO₂, light, hormones, lipids, cell walls and biofuels" Stanford Global Climate Energy Project. Palo Alto, CA (October 2007)
Experimental Biology Annual Meeting/American Society of Biochemistry and Molecular Biology. Washington, D.C. (April 2007)
17th International Conference on Arabidopsis Research. Madison, WI (June 2006)
Plant Cell Wall Biosynthesis Meeting. Asilomar, CA (August 2005)
16th International Conference on Arabidopsis Research. Madison, WI (June 2005)
Gordon Research Conference: Plant Cell Walls. Meriden, NH (August 2004)
Plant Cell Wall Biosynthesis Meeting. UCLA Lake Arrowhead, CA (May 2002)
American Society of Plant Physiologists annual meeting. San Diego, CA (July 2000)

Posters

Youngs H & Gunda P Water research at the Energy Biosciences Institute (University of California Water Quality, Quantity, and Security Strategic Initiative Meeting Davis, CA (November 2012)
Youngs HL, Mauk G Thermal stabilization of manganese peroxidase from *Phanerochaete chrysosporium*: Role of the manganese binding site and a putative novel C-terminal metal binding site. Experimental Biology Annual Meeting/American Society of Biochemistry and Molecular Biology. Washington, D.C. (April 2007)
Youngs HL Understanding the role of chelators in the Mn peroxidase reaction cycle: A closer look at Mn speciation. Experimental Biology Annual Meeting/American Society of Biochemistry and Molecular Biology. Washington, D.C. (April 2007)
Youngs HL Determining the function of the cellulose synthase like genes: Restoring root hair growth in *kojak* (*csld3*). Plant Cell Wall Biosynthesis Meeting. Asilomar, CA (August 2005)
Youngs HL and Somerville C. Developmental variation in cell wall composition of various ecotypes in *Arabidopsis thaliana*. Gordon Research Conference: Plant Cell Walls. Meriden, NH (August 2004)
Bonetta D, **Youngs HL**, Raab T, Somerville C. Functional analysis of the cellulose synthase-like gene, CSLE, in *Arabidopsis thaliana*. Plant Cell Wall Biosynthesis Meeting. UCLA Lake Arrowhead, CA (May 2002)

Peer Review Activities

EOS (2105)
Nature Climate Change (2015)
Global Change Biology Bioenergy (2014)
Bio-FPR (2014)
USDA (2014) Sun Grant Competitive Grants Program
USDA-NIFA Panel (2013) Agriculture and Food Research Initiative Development of Sustainable Production of Regionally-Appropriate Biomass Feedstocks Panel (\$10m project awards)
USDA-NIFA Panel (2012) Agriculture and Food Research Initiative Development of Sustainable Production of Regionally-Appropriate Biomass Feedstocks Panel (\$10m project awards)
Proceedings of the National Academy of Sciences (2011)
USDA-NIFA Panel (2011) Agriculture and Food Research Initiative – Sustainable Bioenergy Coordinated Agricultural Program Panel (\$40m project awards)
Plant Physiology (2008)
Brooks-Cole Publishing, on-line resources for Biochemistry by Garrett and Grisham (2007)
Reviewed Chapter 5 "Biology" pp. 209-310 in Fundamentals of Engineering (2007).
Editorial Review Board, Scientific Journals International, Biology Section (2007)
Journal of Phycology (2000)

Grants Awarded

General Motors Research & Development Center "A Systems Approach to Improved Processing of Forestry Biomass to Optimize Co-Production of Biofuels and Biopolymers" (Co-PI with Susan Bagley, Patricia Heiden and David Shonnard as PI) (submitted December 2006, Awarded August 2007)
MTU Century II Endowment Equipment (C2E2) Grant "High throughput screening of transgenic plants via fluorescence stereomicroscopy" (submitted October 2006, awarded November 2006)
MTU Research Excellence Fund "A peptidomimetic approach to identification and functional elucidation of novel carbohydrate binding proteins and glycosidase inhibitors." (submitted March 2006, awarded June 2006)
Sigma Xi "¹³C-labeling of cell wall polymers in red algae to examine adaptation in fresh- and salt-water environments" Undergraduate Research Grant (April 1994)

Courses Taught (sole instructor)

BL1800 Biochemistry Orientation - Michigan Technological University (2006-2008)
BL4010 Biochemistry - Michigan Technological University (2005-2008)
BL4000 Special Problems in Biology - Michigan Technological University (2006-2008)
BL4820 Biochemical Techniques - Michigan Technological University (2005-2008)
BL5400 Special Topics: Plant Development – Michigan Technological University (2007)
BMB596 Special Topics in Bioethics - Oregon Graduate Institute (2000)
CHM277 Inorganic Chemistry Laboratory - University of Portland (1999-2000)
BL414 Plant Physiology Laboratory - Michigan Technological University: UTA (1993-1994)

Curriculum Developed

BL1800 Biochemistry and Molecular Biology Orientation. An interdisciplinary introduction to research and careers in a broad variety of biochemistry-related fields. – Michigan Technological University
BL4820 Biochemical Techniques – Hands-on Lab Course. All new labs. – Michigan Tech Univ
BL4420 Bioethics. A set of moderated, objective discussions regarding the ethical issues arising from biotechnological advances. Issues are dissected using a normative ethics framework. – Michigan Tech Univ

BL5070 Enzymology. An advanced study of enzymes. Course includes detailed biochemical analysis of enzyme structure-function relationships, enzyme mechanisms, and enzyme kinetics. – Michigan Tech Univ

Guest Course Lectures

236.6 Public Law and Policy: American Jobs Project – University of California, Berkeley “Employment impacts of bioenergy production” (November, 2014)

Bioengineering 181: Berkeley Lectures on Energy: Energy from Biomass – University of California, Berkeley. “Decarbonizing the energy system” and “The role of biomass in the energy landscape” (September, 2014; 2013; 2012)

CE 90 Science and Engineering of Sustainable Energy – University of California, Berkeley “The role of biomass in a renewable energy future” (March, 2013)

Academic Advising

Primary Advisor (MTU)

PhD Students	Prashant Swamy (moved to University of Georgia, Ph.D. 2013)
MS Students	Yan Ding (M.S. 2007) Kate Tay (M.S. 2008)
Undergraduates	Elaan Fox (B.S. 2009) Kelsey Aird (B.S. 2009) Rachael Sturtevant (Honors project) (B.S. 2008) Elizabeth Haibel (Chemical Engineering) (B.E. 2009) John Buzzo (B.S. 2008) Evan Milton (SURF award 2006) (B.S. 2006) Michael Korror (B.S. 2007) Kate Tay (B.S. 2006)

Advising Committees (MTU)

PhD Committees	Sarah Kiemle (Biology) (Ph.D. 2010) Pushpinder Brar (Forestry) (Ph.D. 2008)
MS Committees	John Hribljan (Biology) Doug Barber (Civil Engineering) (M.E. 2007) Asha Lakkavaram (Forestry) (M.S. 2006)

Intern Supervision (EBI-UCB)

Undergraduate	Jizel Emralino (Plant and Microbiol Biology) (2014-2015) Dennis Mulligan (Genetics and Plant Biology) (2014-2015) Anastasia Chvets (Engineering) (2010)
Post-Undergraduate	Isam Hararah (B.S. Biological Engineering) (2009-2010) Alison Cockeril (B.S. Biology) (2010-2011)

Fellowship Advisor (EBI-UCB)

Post-doctoral	Padma Gunda (2012-2014)
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Committees and Administrative Services

Executive Editor, Bioenergy Connection (2012-present)
Review Panel Berkeley Philomathia Fellows Program (2013)
Contributing Editor, Bioenergy Connection (2011-2012)
Review Panel for Biology Fellows Program, UC Berkeley (2009)
MTU Biotech Research Center (2005-2008)
CoPhy BiCh MTU Interdisciplinary Journal Group (founder, member 2006-2008)
MTU Women in Science and Engineering (2005-2008)
Wood-to-Wheels working group, MTU Sustainable Futures Institute (SFI) (2005-2008)
Review Panel for MTU Century II Endowment Equipment Grant (2007)

Review Panel for MTU Summer Undergraduate Research Fellowship (2007)
Alternate representative on the Graduate Faculty Council, MTU (2006-2007)
DeVlieg Scholarship Reviewer, MTU (2006)
Judge for the Graduate Student Council Poster Symposium, MTU (2006)
Judge for the Biotech Research Center Graduate Research Forum, MTU (2006)
Climate Study Focus Group, MTU (2005)
Member of the Chair Search Committee, MTU Biological Sciences (2007)
Member of the Web Committee, MTU Biological Sciences (2006-2007)
Member of the Graduate Committee, MTU Biological Sciences (2006-2007)
Evaluator for BL4510 Senior Essay (2006)
Judge for the Undergraduate Poster Session, American Society for Biochemistry and Molecular Biology (2007)
Organized the first annual OGI Student Poster Session (2000)
Representative on the Faculty Leadership Council Academic Task Force (2000)
Representative on the OGI Student Council (1998-2000)
Representative on the OGI Education Policy Committee (1999-2000)
Publisher/Editor of the Graduate Student Newsletter "Antix" (1998-2000)
Experimental Group Leader Advocates for Women in Science, Engineering and Mathematics (AWSEM) (1999-2000)

Professional Affiliations (past and current)

American Association for the Advancement of Science
American Chemical Society
American Geophysical Union
American Psychological Society
American Society of Biochemistry and Molecular Biology
American Society for Plant Biology
Association for Women in Engineering, Science, and Mathematics
Association for Women in Science
American Botanical Society
New York Academy of Sciences
Union of Concerned Scientists
Women 2.0



Contra Costa County

Please return completed applications to:

Clerk of the Board of Supervisors

651 Pine St., Room 106

Martinez, CA 94553

or email to: ClerkofTheBoard@cob.cccounty.us

BOARDS, COMMITTEES, AND COMMISSIONS APPLICATION

First Name: Aimee, Last Name: Benedict, Home Address - Street, City: Richmond, Zip Code: 94801, Phone, Email, Resident of Supervisorial District: 94801

EDUCATION Check appropriate box if you possess one of the following: [X] High School Diploma, [] CA High School Proficiency Certificate, [] G.E.D. Certificate

Table with 3 columns: Colleges or Universities Attended, Course of Study/Major, Degree Awarded. Row 1: UC Santa Cruz, Literature, Yes/No.

Other Training Completed:

Board, Committee or Commission Name, Seat Name

Have you ever attended a meeting of the advisory board for which you are applying? [X] No, [] Yes. If yes, how many?

Please explain why you would like to serve on this particular board, committee, or commission.

I would like to serve on the Hazardous Materials board as a community member because I live in Point Richmond-7 years- which is close to Chevron, one of the hazardous materials air polluters, and in Richmond in general, and I have wanted in the past to become more involved with environmental issues in this area. I have attended meetings of Communities for a Better Environment, who notified of this opening, and air meetings of BAAQMD for a while and because...

Describe your qualifications for this appointment. (NOTE: you may also include a copy of your resume with this application)

Attended meetings of Communities for a Better Environment, BAAQMD. Research into issues, legal and otherwise, for writing and legal purposes. Awareness of clean air issues in California, back through the 1980s. I have attempted to follow issues affecting Richmond while I have lived here.

I am including my resume with this application: Please check one: [] Yes, [X] No

I would like to be considered for appointment to other advisory bodies for which I may be qualified. Please check one: [X] Yes, [] No

Are you currently or have you ever been appointed to a Contra Costa County advisory board?

Please check one: Yes No

List any volunteer and community experience, including any boards on which you have served.

Do you have a familial relationship with a member of the Board of Supervisors? (Please refer to the relationships listed below or Resolution no. 2011/55)

Please check one: Yes No

If Yes, please identify the nature of the relationship:

Do you have any financial relationships with the county, such as grants, contracts, or other economic relationships?

Please check one: Yes No

If Yes, please identify the nature of the relationship:

I CERTIFY that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge and understand that all information in this application is publicly accessible. I understand and agree that misstatements and/or omissions of material fact may cause forfeiture of my rights to serve on a board, committee, or commission in Contra Costa County.

Signed: Aimee Benedict

Date: 9/25/20

Submit this application to:
Clerk of the Board of Supervisors
651 Pine St., Room 106
Martinez, CA 94553

Questions about this application? Contact the Clerk of the Board at (925) 335-1900 or by email at ClerkofTheBoard@cob.cccounty.us

Important Information

1. This application and any attachments you provide to it is a public document and is subject to the California Public Records Act (CA Government Code §6250-6270).
2. All members of appointed bodies are required to take the advisory body training provided by Contra Costa County.
3. Members of certain boards, commissions, and committees may be required to: 1) file a Statement of Economic Interest Form also known as a Form 700, and 2) complete the State Ethics Training Course as required by AB 1234.
4. Meetings may be held in various locations and some locations may not be accessible by public transportation.
5. Meeting dates and times are subject to change and may occur up to two (2) days per month.
6. Some boards, committees, or commissions may assign members to subcommittees or work groups which may require an additional commitment of time.
7. As indicated in Board Resolution 2011/55, a person will not be eligible for appointment if he/she is related to a Board of Supervisors member in any of the following relationships: mother, father, son, daughter, brother, sister, grandmother, grandfather, grandson, granddaughter, great-grandfather, great-grandmother, aunt, uncle, nephew, niece, great-grandson, great-granddaughter, first-cousin, husband, wife, father-in-law, mother-in-law, daughter-in-law, stepson, stepdaughter, sister-in-law, brother-in-law, spouse's grandmother, spouse's grandfather, spouse's granddaughter, and spouses' grandson, registered domestic partner, relatives of a registered domestic partner as listed above.
8. A person will not be eligible to serve if the person shares a financial interest as defined in Government Code §87103 with a Board of Supervisors Member.



Contra Costa County

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Clerk of the Board of Supervisors

651 Pine St., Room 106

Martinez, CA 94553

or email to: ClerkofTheBoard@cob.cccounty.us

BOARDS, COMMITTEES, AND COMMISSIONS APPLICATION

First Name: Brian, Last Name: Parra, Home Address - Street, City: Pinole, Zip Code: 94564, Phone, Email, Resident of Supervisorial District

EDUCATION Check appropriate box if you possess one of the following: [X] High School Diploma, [] CA High School Proficiency Certificate, [] G.E.D. Certificate

Table with 3 columns: Colleges or Universities Attended, Course of Study/Major, Degree Awarded. Row 1: Contra Costa College, Engineering, Yes/No.

Other Training Completed: LIUNA Leadership Training, Asbestos Supervisor, Lead Supervisor, OSHA 30

Board, Committee or Commission Name: Contra Costa County Hazardous Materials Commission, Seat Name: Environmental Justice

Have you ever attended a meeting of the advisory board for which you are applying? [] No, [X] Yes, If yes, how many? 2

Please explain why you would like to serve on this particular board, committee, or commission. I would like to serve on this commission to better represent my community in regards to responsible handling or policies in dealing with hazardous materials and their effects on the public's health. I am an advocate for environmental justice.

Describe your qualifications for this appointment. (NOTE: you may also include a copy of your resume with this application)

I am a Business representative for Laborers' Local 67 and represent the industry of asbestos, lead, mold and other hazardous waste removal/remediation; such as biohazard clean-up, fire remediation, and emergency response clean-up for oil, PCBs, etc. I understand and have interest in the principles of environmental justice as well as the policies and regulations that outline hazardous materials issues. I live in a community that is central to areas highly affected by hazardous materials and their releases from either waste, emissions or other exposures.

I am including my resume with this application: Please check one: [] Yes, [X] No

I would like to be considered for appointment to other advisory bodies for which I may be qualified. Please check one: [X] Yes, [] No

Are you currently or have you ever been appointed to a Contra Costa County advisory board?

Please check one: Yes No

List any volunteer and community experience, including any boards on which you have served.

Volunteering by precinct walking in several counties of Northern California by handing out leaflets and participating in demonstrations to pass local measures and state bills that improve community well-being either economically or environmentally.

Do you have a familial relationship with a member of the Board of Supervisors? (Please refer to the relationships listed below or Resolution no. 2011/55)

Please check one: Yes No

If Yes, please identify the nature of the relationship:

[Empty box for relationship details]

Do you have any financial relationships with the county, such as grants, contracts, or other economic relationships?

Please check one: Yes No

If Yes, please identify the nature of the relationship:

[Empty box for relationship details]

I CERTIFY that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge and understand that all information in this application is publicly accessible. I understand and agree that misstatements and/or omissions of material fact may cause forfeiture of my rights to serve on a board, committee, or commission in Contra Costa County.

Signed:

[Handwritten signature]

Date:

9-9-2020

Clerk of the Board of Supervisors
651 Pine St., Room 106
Martinez, CA 94553

Questions about this application? Contact the Clerk of the Board at (925) 335-1900 or by email at ClerkofTheBoard@cob.cccounty.us

Important Information

- This application and any attachments you provide to it is a public document and is subject to the California Public Records Act (CA Government Code §6250-6270).
- All members of appointed bodies are required to take the advisory body training provided by Contra Costa County.
- Members of certain boards, commissions, and committees may be required to: 1) file a Statement of Economic Interest Form also known as a Form 700, and 2) complete the State Ethics Training Course as required by AB 1234.
- Meetings may be held in various locations and some locations may not be accessible by public transportation.
- Meeting dates and times are subject to change and may occur up to two (2) days per month.
- Some boards, committees, or commissions may assign members to subcommittees or work groups which may require an additional commitment of time.
- As indicated in Board Resolution 2011/55, a person will not be eligible for appointment if he/she is related to a Board of Supervisors member in any of the following relationships: mother, father, son, daughter, brother, sister, grandmother, grandfather, grandson, granddaughter, great-grandfather, great-grandmother, aunt, uncle, nephew, niece, great-grandson, great-granddaughter, first-cousin, husband, wife, father-in-law, mother-in-law, daughter-in-law, stepson, stepdaughter, sister-in-law, brother-in-law, spouse's grandmother, spouse's grandfather, spouse's granddaughter, and spouses' grandson, registered domestic partner, relatives of a registered domestic partner as listed above.
- A person will not be eligible to serve if the person shares a financial interest as defined in Government Code §87103 with a Board of Supervisors Member.