



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Planning for Committee of Visitors Review of the BES Chemical Sciences, Geosciences, and Biosciences Division

Briefing to BESAC

July 30, 2020

Bruce Garrett, CSGB Division Director
Basic Energy Sciences
Office of Science, U.S. Department of Energy

History of COVs in SC-BES

- The first SC-BES COV was held in 2002 with a review of BES Chemical Sciences
- This will be the seventh CSGB COV. All previous COV reports and BES responses can be found at:
<https://science.osti.gov/bes/besac/BES-COV>
- BES COVs are a BESAC activity.
- COV reports are approved by BESAC and recommendations are taken seriously by BES
 - Creation of Portfolio Analysis and Management System
 - Improved documentation of award decision making process
 - Additional resources for program manager travel
 - Endorsement of use of white papers as a key aspect of communication with the community



Committee of Visitors Charge

1. For both the DOE laboratory projects and the university projects, assess the efficacy and quality of the processes used to:
 - (a) solicit, review, recommend, and document proposal actions, and
 - (b) monitor active projects and programs.

2. Within the boundaries defined by DOE missions and available funding, comment on how the award process has affected:
 - (a) the breadth and depth of portfolio elements, and
 - (b) the national and international standing of the portfolio elements.

Office of Basic Energy Sciences

Linda Horton, Director

BES Budget and Planning

Donetta Herbert, Financial Management
 Vacant, Senior Technical Advisor
 Thomas Russell, Senior Technical Advisor

BES Operations

Teresa Crockett, Program Analyst
 Robin Hayes, Program Manager
 Kerry Hochberger, Program Support Specialist
 Vacant, Program Analyst / BESAC*
 Andy Schwartz, Senior Technical Advisor for EFRCs**

* Basic Energy Sciences Advisory Committee
 ** Energy Frontier Research Centers

Materials Sciences and Engineering Division

Andy Schwartz, Acting Director

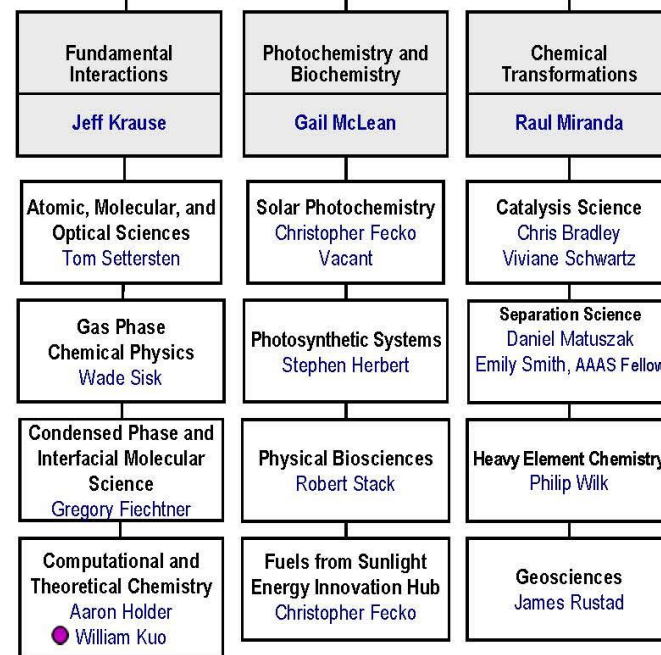
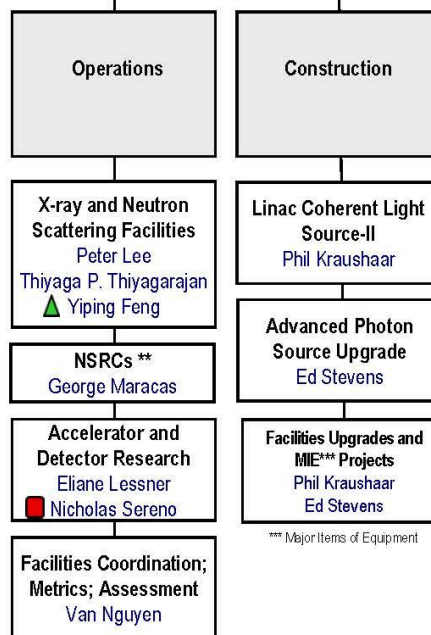
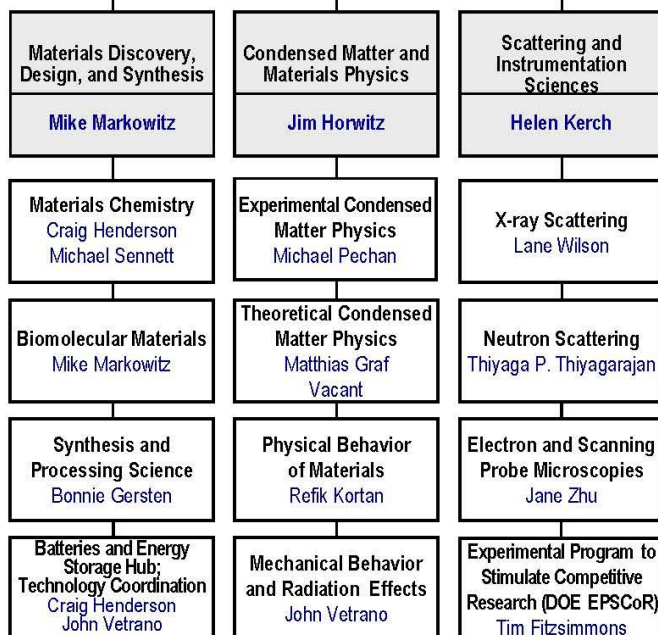
Scientific User Facilities Division

Linda Horton, Acting Director

Rocio Meneses, Program Support Specialist

Chemical Sciences, Geosciences, and Biosciences Division

Bruce Garrett, Director



*** Major Items of Equipment

** Nanoscale Science Research Centers

LEGEND

- Detailee from ANL
- Detailee from LLNL
- ▲ Detailee from SLAC

New since the last COV

Chemical Sciences, Geosciences & Biosciences Division

Bruce Garrett, Division Director



Fundamental Interactions Team



Team Lead – Jeff Krause

Atomic, Molecular, & Optical Sciences



Tom Settersten

Gas Phase Chemical Physics



Wade Sisk

Condensed Phase and Interfacial Molecular Science



Gregory Fiechtner

Comp. and Theo. Chem. & Comp. Chem. Sci.



Aaron Holder

Photochemistry and Biochemistry Team



Team Lead – Gail McLean

Photosynthetic Systems



Stephen Herbert

Physical Biosciences



Robert Stack

Solar Photochemistry

PM vacancy



Chris Fecko

Fuels from Sunlight Energy Innovation Hub

Chemical Transformations Team



Team Lead – Raul Miranda

Catalysis Science



Viviane Schwartz Chris Bradley

Separation Science



Dan Matuszak

Heavy Element Chemistry



Philip Wilk

Geosciences



James Rustad

CSGB Division – by the Numbers

- CSGB has an annual budget of ~\$360M
 - EFRCs and Hub are ~\$70M
 - Funding: 50% universities, 50% national laboratories
 - 11 core research areas
 - Active projects: >500 university, ~95 national laboratory
- CSGB staffing
 - 3 team leads
 - 12 program managers (1 vacancy)
- Annual new and renewal proposals: 700 – 750
- Annual progress reports: >500
- Annual preapplications (white papers): ~700

COV will review proposal decisions from FY 2017 – 2019

- Solicitations covered:
 - Office of Science Annual Funding Opportunity Announcements (universities only)
 - FY 2017 – 2019 Early Career Research Program (universities and labs)
 - FY 2017 Computational Chemical Sciences (labs only)
 - FY 2018 Computational Chemical Sciences (universities and labs)
 - FY 2017 Scientific Discovery through Advanced Computing
 - FY 2018 – 2019 Materials and Chemical Sciences Research For Quantum Information Science (universities and labs)
 - FY 2018 Research at the Frontiers of X-Ray Free Electron Laser Ultrafast Chemical and Materials Sciences (universities and labs)
 - FY 2019 Data Science for Discovery in Chemical and Materials Sciences (universities and labs)
- New and renewal applications from National Laboratories

Exclusions of proposal decision from COV

- The COV will not review actions from other solicitations such as:
 - Energy Innovation Hubs
 - Energy Frontier Research Centers
 - SC Graduate Fellowship Program
 - EPSCoR
 - SBIR/STTR



FY 2020 BES-CSGB Committee of Visitors

- Chair: Andrew Stack, Oak Ridge National Laboratory
- Virtual meeting using Zoom
- Dates: September 8-11, 2020
- PAMS-based COV
- 18 COV panelists organized into 3 panels (centered on the 3 CBGB Division programmatic teams)



Panel Structure and Membership

Panel 1: Fundamental Interactions, Kelly Gaffney, SLAC

Aurora Clark	Washington State University
Mette Gaarde	Louisiana State University
Niri Govind	Pacific Northwest Natl Laboratory
Amy Mullin	University Maryland
Thomas Orlando	Georgia Tech

Panel 2: Photochemistry and Biochemistry, Joan Broderick, Montana State U

Matt Beard	National Renewable Energy Laboratory
Gary Brudvig	Yale University
Marilyn Gunner	City College University New York
Carrie Harwood	University Washington

Panel 3: Chemical Transformations, Laura Pyrak-Nolte, Purdue University

Rebecca Abergel	Lawrence Berkeley National Laboratory
Paul Johnson	Los Alamos National Laboratory
Robert McCabe	National Science Foundation
Lynda Soderholm	Argonne National Laboratory
Krista Walton	Georgia Tech

Elements of agenda

- Preliminary activities (1-2 weeks before COV)
 - presentations and background material available to COV, Zoom/PAMS training
- Day 1 (1-5 PM ET)
 - Plenary session: welcome, BESAC charge, BES and CSGB overviews
 - Panel breakout sessions: brief portfolios overviews from CSGB team leads; first read of selected packages by COV; Program Managers on call
 - Executive session (chair/panel leads): assessment of key elements and gaps
- Day 2 (11-4 PM ET)
 - Panel breakout sessions: panelist continue review, Program Managers on call
 - Executive session (all COV): discuss output from panels, identify key observations, and decide if other reviews are needed
 - Check-in Meeting: Chair briefs BES on progress, gets clarification on issues
- Day 3-4 (11-4 PM ET)
 - Flexible schedule as needed to complete review and write draft of panel reports
 - Executive session (all COV): discuss key findings & recommendations
 - Closeout plenary session: presentation of major findings and recommendations

Questions/comments?

