

Bylaws of the ADSC from the NSF RSEC Proposal

C5. Organizational Structure and Operating Procedures of the Consortium

C5a. Overview. Coordinating the proposed activities of a large and diverse group such as the Advanced Diffraction Studies Consortium, ADSC, will require a substantial and effective organizational structure. To this end, the ADSC was formally inaugurated at a meeting at Youngstown State University on December 12th, 1998, where its purpose and rationale, plans for research and educational activities, goals, draft Bylaws, organizational, and management structure, were approved. The purposes and rationales for the ADSC are described in section C1, above, the plans for ADSC activities were described in sections C2 and C3, above, and the goals of the ADSC were described in section C4, above. This information, along with current membership lists, will also be available from the ADSC WEB site at <http://www.as.yzu.edu/~adhunter/ADSC/index.html>. The organizational structure and management plan for the ADSC are established in its Official Bylaws. Those components relevant to this RSEC proposal are described below.

C5b. Membership. The initial membership in the Advanced Diffraction Studies Consortium is centered in northern Ohio and western Pennsylvania and is composed of 6 PhD and 4 MS level institutions, three federal labs, several dozen two and four year colleges, and about a dozen industrial partners. The institutional members may be *research universities* (i.e., universities granting PhD degrees in chemistry), *predominantly undergraduate institutions* (i.e., granting MS, BS, or two year Associate degrees as their highest degrees in chemistry), *non-profit research institutions*, or *corporations*. The institutional membership includes: *Host Institutions* are places where faculty and students from predominantly undergraduate schools may go to conduct individual or collaborative research and/or to attend professional development courses in crystallography/diffraction, *Home Institutions* are the predominantly undergraduate institutions whose faculty and students this consortium is meant to serve (some MS granting institutions fall into both categories). *Associate members* are individual schools, school districts, and high school teachers. *Industrial Partners* are industrial organizations with which consortium members have productive partnerships or which are vendors of diffraction equipment. The individual membership includes faculty and those holding similar permanent appointments at institutions of higher learning or research. They may join the ADSC independent of the membership status of their employers. The ADSC institutional membership at the time this proposal was submitted are listed above. Its current membership is listed on its WEB page.

The ADSC is open to new members who will be added if their membership will strengthen the ADSC in carrying out its goals. Prospective individual, institutional, associate, and industrial members may apply for admission to the Director of the ADSC. After review of their applications, they may be given temporary memberships until the next meeting of the ADSC Operational Oversight Committee approves their permanent membership. Membership in the Advanced Diffraction Studies Consortium may be revoked if a majority of the members of the Operational Oversight Committee concludes in a secret ballot that the member in question is no longer meeting their responsibilities to the consortium.

There will be an annual meeting of the fully ADSC membership held in conjunction with the annual Pittsburgh Diffraction Society conference each fall. During this meeting, research and educational results from the past year's activities will be presented and priorities and activities for the coming year will be set.

C5c. Director of the ADSC. The Director of the Advanced Diffraction Studies Consortium will be responsible for the day to day operation of the consortium following the policy guidelines set out by the Operational Oversight Committee. The Director will be responsible for calling meetings of the Consortium's various committees, providing recommendations to the committees, surveying the Consortium's membership, and coordinating and disseminating the results. The Director will be responsible for administering the Consortium's budget and, in particular, this NSF RSEC grant for which he is the PI. The Director will be responsible for various additional functions to be decided by the Operational Oversight Committee, including: organizing the summer school program in crystallographic/diffraction methods, surveying the membership to gather assessment and planning information, coordinating external grant proposals to be submitted by the Consortium, drafting the annual assessment document and annual and final grant reports (which will be approved by the Operational Oversight Committee and forwarded to the External Advisory Committee for comment and critical review). The first Director will be Dr. Allen D. Hunter of the Chemistry Department of Youngstown State University. His (initial) term will extend from January 1st, 1999 to June 1st, 2005 (i.e., the expected 5 year life of the RSEC grant plus one year to assess and report the results). Subsequent Directors will be chosen by secret ballot of the Operational Oversight Committee following a survey of the membership for nominations. The Director may be removed for non-performance of duties by a two thirds vote of the Operational Oversight Committee and the ADSC membership. [So that he has the time available to carry out these duties, YSU is committed to reducing his teaching load by 100% in the first and 50% in each subsequent year of the grant.]

C5d. Operational Oversight Committee. The Operational Oversight Committee, OOC, is the official governing body of the consortium and is charged with strategic planning, allocation of funds and equipment, policy development, and leadership of the ADSC with a particular charge of ensuring that the Consortium is operating according to its founding principles, meeting the needs of its target groups, and is making adequate progress to becoming self-supporting at the end of the 5 year RSEC grant period. This committee will meet several scheduled times each calendar year to discuss these issues (i.e., in August/September, December/January, and May/June). A quorum for these meetings will be 50% of the committee's members. To ensure that this committee contains an appropriate balance it will have ten members, including: three Senior Research Personnel drawn from the host institutions, three faculty from the predominantly undergraduate schools, one representative from each of the national research labs and industry, and the Director of the ADSC and the Coordinator of Minority Enhancement Programs as *ex officio* members. With the exception of the *ex officio* members, no more than two Operational Oversight Committee members will be drawn from any one institution. The Director of ADSC will be the committee's chair. The three research personnel will be chosen to represent a cross section of primary research areas (i.e., high resolution crystallography of small molecules, materials characterization crystallography, and protein crystallography) and geographic regions.

The initial Senior Personnel members are: Bryan Craven (Indiana University of Pennsylvania, high resolution crystallography, PA), Vivien Yee (Cleveland Clinic foundation and Case Western Reserve University, protein crystallography, northeast Ohio), and James Gano (University of Toledo and Director of the Ohio Crystallography Consortium). The initial members from predominantly undergraduate institutions are: Alan Jircitano (Penn State Erie-The Behrend College), Edward Zovinka (Saint Francis College), and Marty Serra (Allegheny College). The initial representatives from the federal research labs and industry are: Mike Nathal (NASA Lewis Research Center) and Matt Muir (Goodyear), respectively.

These initial members will serve a 1 or 2 year term which will extend from January 1st, 1999 until December 31st, 2000 or 2001 (i.e., staggered terms). If any of these members resigns before the end of their term, their replacements will be elected from a slate nominated by the rest of the members of the Operational Oversight Committee by a secret ballot of the individual members of the Advanced Diffraction Studies Consortium. In subsequent years, the members of the OOC will serve 2 year terms. These committee members will be elected by secret ballot of the active faculty members of the Advanced Diffraction Studies Consortium from a slate of nominees for each category prepared by the OOC.

The Operational Oversight Committee will evaluate all applications to the ADSC for undergraduate faculty and student research participant support and other supplemental funding proposals. The OOC will also be centrally involved in assessing and disseminating consortium activities and results, facilitating collaborations between ADSC members, writing future grant proposals, monitoring access policies and costs on instrumentation funded by RSEC funds, and planning future consortium activities.

C5e. Coordinator of Minority Enhancement Programs. The Coordinator will be responsible for organizing and overseeing the consortium's efforts meant to enhance research and educational opportunities for high school students and individuals from groups that have historically been underrepresented in science and engineering. The Coordinator's responsibilities will include organizing the summer research programs for high school students and outreach activities to faculty and students from historically black colleges and universities. This Coordinator will be supported by the Operational Oversight Committee with required organizational and financial support (i.e., initially \$5,000 per year). The Goals and Objectives of the Coordinator are to advance the diversity, quality, and quantity of students in the pipeline for research by targeting African, Latin, Native, and Disabled Americans. The Coordinator will also be the lead individual on our external grant applications to fund our minority enhancement programs, examples include: Council for Undergraduate Research, CUR, Summer Fellowships in geology, chemistry, and biology, NSF-SURE Summer Undergraduate Research Experience for geology, Student Achievement in Research and Scholarship, STARS, program funded by OBoR (currently in place at Cleveland State and John Carroll Universities) which targets academically gifted students from groups which are under-represented in higher education, the Minority Work program at YSU, and the ACS SEED program used to fund high school students. Sherri Lovelace-Cameron from YSU will be appointed to this position for the five year term of the grant. If she resigns, or after a five year term, this position would be elected by the faculty members of the consortium from individuals nominated by the Operational Oversight Committee.

C5f. Consortium Grants Committee. The purpose of this committee is to identify suitable grant opportunities and to facilitate external research grant applications by consortium members, to aid them in preparing and internally reviewing proposals, and to help them join the mainstream of nationally funded research. It will also help them with educational grants related to crystallography/diffraction. This committee will be supported by the Operational Oversight Committee with required organizational and financial support. It will be composed of Consortium

members with records of receiving and evaluating educational and research grants, especially members of the Operational Oversight Committee. The two *ex officio* members of this committee will be the Consortium Director and the Coordinator of Minority Enhancement Programs.

C5g. External Advisory Committee. The purpose of the External Advisory Committee is to directly contact a representative sample of the Consortium membership and/or visit a representative selection of the Consortium institutions throughout the year and to annually review the assessment documents provided by the Consortium. It will be support by \$5,000 in funds annually from the RSEC budget. Based on this information, this committee is to make recommendation to the Consortium on it successes, potential or actual problems, and opportunities for future growth. It's membership will be three individuals from outside our region having national credentials in crystallography/diffraction, ideally in both research and teaching. The following individuals who strongly support the ideas embodied in our proposal and have agreed to act in this role are: Phil Fanwick (Purdue University, staff crystallographer, very active in the ACA, crystallographic education expert), B. C. Wang (University of Georgia, protein crystallographer and current head of the ACA summer school in crystallography), and John Ricci (University of South Maine, Portland, a member of the Chemical Crystallography Group at Brookhaven, strong undergraduate crystallography experience). The initial members of the External Advisory Committee will have terms that expire on December 31st of 2004. At the end of their terms, or if any member resigns, their replacement(s) will be selected by a majority vote of the Operational Oversight Committee. Additional support and information for this committee will be provided by the ACA Continuing Education Committee which we have approached through Jeanette Krause, who serves on this group, to assist in the evaluation and oversight of our consortium's activities.