Academic Investment at Vanderbilt

A Report by the Faculty Senate's Task Force on Cross-School Initiatives and the Academic Venture Capital Fund

April 1 2004

Membership of Task Force

David Wood, Chair, Professor of Philosophy (external appointment)

Mark Ellingham, APS, Associate Professor of Mathematics

Victoria Greene, APS, Associate Professor of Physics

Cynthia Paschal, APS, Associate Professor of Biomedical Engineering

Ronald Masulis, APS, Frank K. Houston Professor of Finance

David Robertson, Director Clinical Research Center (external appointment)

Ann Kaiser, Harvie Branscomb Distinguished Professor of Special Education (ext appt)

Leah Marcus, Edwin Mims Professor of English (external appointment)

Academic Investment at Vanderbilt

A Report by the Faculty Senate's Task Force on Cross-School Initiatives and the Academic Venture Capital Fund

Table of Contents

Acknowledgements

Preliminary Remarks

- 1. Executive Summary
- 2. Select Recommendations
- 3. Recent History of CSI/AVCF
 - 3.1 AVCF Goals and Criteria for Selection of Proposals
- 4. Reflections on the process
 - 4.1 Introductory remarks
 - 4.2 Transparency
 - 4.3 Balance
 - 4.4 Role of AVCF in achieving SAPG goals
 - 4.5 Meshing AVCF funding with other university Support
 - 4.6 Carrying capacity
 - 4.7 Sustainability
 - 4.8 Evaluating "success"
 - 4.9 Different models
 - 4.9.1 Scope of the AVCF
 - 4.9.2 Funding theologies: Big Bang v. Constant Creation
 - 4.10 Recurrent themes from faculty responses
 - 4.11 Humanities Center

5. Appendices

- 5.1 Faculty feedback to the Task Force (extracts)
- 5.2 Survey Questions sent out by the Task Force
 - 5.2.1 Request for Feedback on AVCF process sent to 50+ key participants
 - 5.2.2 Letter sent to all faculty through Chancellor Gee requesting feedback on Cross-School Initiatives at Vanderbilt
- 5.3 Historical Overview of the University's Strategic Planning Process and the Creation of the Academic Venture Capital Fund
- 5.4 Charge to the Task Force from Faculty Senate
- 5.5 Current List of Funded, Multi-Year AVCF Projects
- 5 6 Other useful documents available on the web

Acknowledgements

We are grateful for the many faculty who have communicated with us by e-mail, and in person, and for the various discussions and exchanges we have had with Nick Zeppos (Provost and Vice-Chancellor for Academic Affairs), Harry Jacobson (Vice-Chancellor for Health Affairs), Richard McCarty (Dean of A&S), Dean Kent Syverud (Dean of Law), Dennis Hall (Associate Provost for Research and Graduate Education), Jeff Balser (Associate Vice-Chancellor for Research), Mona Frederick (Executive Director of the Robert Penn Warren Center), Matt Ramsey (Chair of Faculty Senate), John Oates (Chair of APS), and John Wikswo (ex-SAPG Chair). Needless to say we are responsible for the conclusions we have drawn from these conversations

Preliminary remarks

This report is the product of a Task Force that first met in November 2003 to review Cross-School Initiatives at Vanderbilt, and the workings of the AVCF. This is a very short time in which to pursue the range of questions this raises [see Charge, Appendix 5.4] and not all the information we sought was readily available. Accordingly, this report makes no claim to be a scientific study. The recommendations we make, and the questions we put on the table for the future, are the results of discussion with both faculty and administrators, and reflection on the responses we have had to survey questions [see Appendix 5.2]. Extracts from these responses are included in Appendix 5.1.

1. Executive Summary

This report is informed by a vision of a dynamic and integrated process of interdisciplinary research development at Vanderbilt. While the results of the AVCF initiative are to be applauded, it is imperative to keep open the prospect of further capital funding initiatives as part of the landscape, so that it is clear to ambitious faculty that there is still a path that leads from strong proposals, and successful smaller projects, to larger scale institutional innovation.

To this end we argue for the creation of a new, more modest, evergreen capital fund. At the same time we propose various ways in which promising proposals could be given development support, or turned into pilot schemes, targeted to both internal and external funding competitions. Hands-on support in developing proposals, and a wider range of ways in which they could be carried forward, will help ensure that high risk proposals are given more chance to prove themselves and that more top quality arts/humanities/social science proposals are brought to the table.

The highlights of this report are contained in our **twenty recommendations**, which reflect both our own deliberations, and the views of those who have communicated with us (extracted in the **Appendix**). These recommendations flesh out the argument for continuing with a new **evergreen capital fund**, for **diversifying the levels and types of research funding**, for increasing the **transparency of funding allocation** processes, for providing **greater development support** to proposals of all sorts, and in general for ceaselessly nurturing synergy in our most valuable resource – our faculty.

This report will have served its purpose if it helps move forward the conversation at Vanderbilt about how best to invest boldly yet selectively in innovation and excellence in collaborative research.

2. Select Recommendations

- 1. Further enhance the transparency of academic research funding initiatives by giving Faculty Senate a role in approving committee memberships and articulating academic priorities, and by giving greater attention to questions of conflict of interest, and to early external peer review of proposals. [4.2]
- 2. For future research funding programs, have the same committee that evaluates initial funding proposals also evaluate the annual progress reports of ongoing grant recipients. Make it policy that related faculty neither vote for nor be present at votes concerning funding renewal. [4.8]
- 3. Where appropriate, take more proposals through a drawn out development phase including funded pilot projects so that they can be more fully evaluated, and that different levels of funding be available so that the process is not always 'winner-take-all'. Ensure that all proposals successful and unsuccessful get informative feedback. [4.2]
- 4. Invite the Associate Provost's Office of Research to engage in even more pro-active long term, deep-cycle, encouragement of collaborative (inter-school, and inter-disciplinary) research especially in the relatively underdeveloped areas of the Arts/Humanities/Social Sciences bringing people together, helping them develop projects, and rework unsuccessful bids, funding pilot schemes, shaking existing trees, and planting new ones. [4.3.1]
- 5. Grant writing development and support should be routinely available to all Vanderbilt faculty through the Associate Provost's Office of Research (or the Office of Sponsored Research, or wherever is most appropriate) to help develop research projects of all sorts so that they can successfully compete for both external and university funding. Hire one or more experienced professional grant writers for this purpose. [4.3.1]
- 6. Apart from budgetary constraints, there is no reason to slow down the development of lean top quality intra/inter disciplinary research centers. [4.6]
- 7. Broaden the remit of a renewed AVCF program to include a wider range of opportunities for capital investment in institutional innovation and renewal. [4.9.1] For example, build on existing strengths where it is possible to take them to a new level, as well as funding completely new projects. [4.3.5]
- 8. Make clear in any new competitive process that potential for attracting new endowment money is one of the forms of sustainability, and that for centers that bring visibility and prestige to Vanderbilt, this is entirely appropriate. [4.3.1]
- 9. Investigate to what extent Discovery Grants lead to external funding. If not, determine whether this is a reasonable goal. If it is, decide how it should be better achieved. [4.5]

- 10. Future AVCF programs should entertain a range of successful grant outcomes which may not always involve subsequent outside funding. Seed grant proposals might have the objective of supporting specific exploratory proposals / pilot studies that might merit further development and result in internal academic unit funding if successful. [4.7.7.2]
- 11. Consider whether AVCF-type funding should be for interdisciplinary projects only, or should also be available for discipline-centered projects now that some progress has been made in breaking down barriers between disciplines. [4.9.1]
- 12. Establish a rolling capital fund to continue the work of the AVCF in a more modest way on an annual basis. [4.9.2]
- 13. Make available to future AVCF programs (or have running parallel to them) a range of funding possibilities, including seed funding / pilot schemes for proposals that merit further development. Provide a funding level intermediate between Discovery Grants and AVCF funding, in the \$100,000-\$500,000 range. *Or* expand the Discovery Grant program in terms of overall funding level, broaden the types of proposals that are solicited and its ability to fund somewhat larger projects. [4.5, 4.7.7.2]
- 14. Develop clear principles and mechanisms for faculty involvement in interdisciplinary work with respect to time commitments, teaching, tenure, and promotion. [4.4]
- 15. Consider revamping the Robert Penn Warren Center for the Humanities into a five star Humanities Center, bringing the arrangements for faculty teaching-release time, and the program of visiting scholars, into line with the best practices at competing institutions. [4.11.3]
- 16. Integrate interdisciplinary centers more fully in graduate education and give greater priority to curricular initiatives, and impact on graduate education, when evaluating new proposals (or funding their continuation). [4.3.5, 4.4]
- 17. Apply tough standards of assessment, when evaluating the success of a center, comparing its performance to that promised by other candidates for capital funding, and linked to the full range of outcomes. [4.7.4]
- 18. Investigate (perhaps in 2005-6) in detail what effect the AVCF projects have had on traditional departments and schools. [4.4]
- 19. Develop general and specific 'sunset' provisions for terminating centers and programs that have outlived their promise. [4.7.4.2]
- 20. Periodically have a committee evaluate what types of interdisciplinary centers are developing at other major research institutions (and elsewhere), and their goals, accomplishments, faculty provisions and funding arrangements. [4.11.3]

3. Recent History of Cross-School Initiatives and the Academic Venture Capital Fund

"The purpose of the AVCF is to launch major new initiatives capable of advancing Vanderbilt to the front rank of American research universities. To make measurable progress toward such an imposing goal almost certainly will require the collaboration of faculty across two or more schools; proposals that are mindful of this principle will have the best opportunity for success."

Guidelines for Preparing SAPG Submissions, Sept. 2002

A Strategic Academic Planning Group (SAPG) was established under the direction of former Provost Tom Burish, in Fall 1999. As part of this process Burish requested that all deans in University Central devise strategic plans for their schools/colleges, giving particular attention to interdisciplinary programs that could involve collaborative work with more than one school/college. A leading assumption of this planning process was that through the upcoming capital campaign, the University Central administration could obtain additional funding to support the recommended interdisciplinary programs. SAPG concluded a three-year assessment of the institution's academic programs by releasing a strategic academic plan in 2002. (See website info, in Appendix)

When Chancellor Gee took office in 2000, he noted that the University's organizational and financial structures limited the University from achieving a greater sense of unity and interaction from both academic and research standpoints. His focus centered on the University's isolating ETOB financial model, which discouraged collaboration between schools and disciplines. To modify this financial model, Chancellor Gee established the Integrated Financial Planning Council (IFPC) and charged it to find a mechanism that would allow central administration to increase its support for interdisciplinary research. Vice Chancellor Brisky, Provost Zeppos, Treasurer Spitz, and Vice Chancellor Jacobson served on the IFPC.

Between the time that Chancellor Gee took office and the release of the strategic academic plan in 2002, the funding for interdisciplinary/interschool projects evolved. Initially, it was determined that funding for new interdisciplinary/interschool projects would originate from the University's upcoming capital campaign; however, key parties recognized that if the University was to act on these ventures, they could not wait for funding from the campaign. With an initial target of a five-year, \$100 million investment phase, the Board of Trust in February 2001 approved the formation of the Academic Venture Capital Fund (AVCF). Funding for the AVCF would occur through four primary sources – quasi-endowment (unrestricted endowment money), IDS tax, general revenue tax that is levied across the University, and future earnings from the University's technology transfer program. It was expected that additional funding would come from the University's capital campaign.

Since Board approval of the AVCF, the fund has completed its work in three approval cycles. The first cycle was overseen by former Provost Burish, while the second and third cycles were overseen by Associate Provost Hall. The following guiding principles (dating from 2002) were used in the selection of proposals). Note: these introductory remarks are adapted from the longer Historical Overview to be found in the **Appendix 5.3** below, where we also include a list of the successful proposals/centers: **Appendix 5.5**

3.1 AVCF Goals and Criteria for Selection of Proposals

- "1. The proposed effort is in accord with Chancellor Gee's five basic goals for academic excellence and strategic growth to renew commitment to the undergraduate experience, to reinvent graduate education, to re-integrate professional education with the intellectual life of the University, to re-examine and restructure economic models, and to renew covenant with the community.
- 2. The proposed effort will help advance Vanderbilt University to the front rank of American universities.
- 3. The proposed effort enhances the learning environment and opportunities for undergraduate, professional, and graduate students, and recognizes the need to recruit and retain an intellectually, racially, and culturally diverse campus community.
- 4. The proposed effort will require significant investment in graduate education, and if successful will improve the national ranking of one or more graduate programs.
- 5. The proposed effort involves a broad range of faculty rather than a few individuals and will foster greater collaboration among the schools.
- 6. The proposed effort will strengthen disciplinary integrity and expand the interdisciplinary range of departments.
- 7. Faculty leadership is already in place.
- 8. The proposed investment will strengthen the core disciplines.
- 9. The proposed effort is bold, requiring significant intellectual and financial investment, with anticipated gains commensurate with the magnitude of the investment.
- 10. The proposed effort shows clear promise for generating the funding needed to sustain itself after the initial period of AVCF support."

4. Reflections on the AVCF Process

4.1 Introductory remarks

Recent strategic planning at Vanderbilt has been bold and courageous, and the resulting creation of twelve new centers and programs through the Academic Venture Capital Fund [AVCF] promises to propel Vanderbilt to a new level of visibility and reputation as a research university. As Dr Harry Jacobson put it "This [AVCF] is the most significant effort to accelerate the development and enhancement of its academic programs in the modern history of Vanderbilt." (Quoted by David F. Salisbury, October 18, 2002). The vision and ambition of the Chancellor, the Provost, the Integrated Financial Planning Council, and the Board of Trust need to be applauded. This is a major event that will change the face of Vanderbilt, and with luck, take us to a new level in both research and reputation. But where do we go from here? It is too soon to judge quite how successful we have been. And yet we cannot just sit on our hands. There is still tremendous untapped interdisciplinary research potential on campus, and new possibilities open up with every conversation.

Our review of this major new phase of academic capital investment makes no attempt to judge the particular decisions made. There is a widespread sense that the process as a whole was a considerable success, but it is too soon to make a formal assessment of individual centers or programs, and in any case this was not our task. Every academic initiative on this scale teaches us something, and raises questions for the future. We have tried here to draw attention to some of the issues raised and to suggest various ways in which a future incarnation of such a process might further broaden the opportunities for capital investment in innovative academic research collaboration at Vanderbilt.

4.2 Transparency

It seems that not all faculty were entirely aware of the nature or details of the AVCF initiative, and some felt that it lacked transparency in various ways. Is this a fair comment?

In some ways, the process became more transparent after the first phase, and with web publication of the SAP-CAS committee structures and memberships, and at certain stages, the titles of proposals, it represented a great leap forward in transparency at Vanderbilt. And there are considerations other than transparency – such as speed and efficiency in launching a bold new initiative. In any competition, those whose proposals are not funded may not entirely understand why, and may feel the process was less than transparent. It is clear that the process was a mixed one, with some projects strongly backed and ready to go when the funding cycle began, and others only developed as time went on. In this sense it was not an entirely 'open' competition. Committee membership was a matter of public record, but Faculty Senate had no input in making these appointments, despite its shared responsibility for academic matters at Vanderbilt. And

concern has been expressed about conflicts of interest between committee members and those involved in proposing projects. It has also been plausibly suggested that proposals might more effectively have been sent out to peer review before being reviewed by our internal committees, providing useful additional input to the decision-making process.

We cannot conclude from any of these concerns that different decisions would have been made if the process had been more fully transparent. But it is important for active and dedicated faculty to be able to believe that their unsuccessful projects and proposals have been judged fairly.

- * **Recommendation**: Further enhance the transparency of academic research funding initiatives by giving Faculty Senate a role in approving committee memberships and articulating academic priorities, and by giving greater attention to questions of conflict of interest, and to early external peer review of proposals.
- * **Recommendation**: Where appropriate, take more proposals through a drawn out development phase including funded pilot projects so that they can be more fully evaluated, and that different levels of funding be available so that the process is not always 'winner-take-all'. Ensure that all proposals successful and unsuccessful get informative feedback

4.2.1 Information Flow

The lack of success we had as a Faculty Senate Academic Policies and Services Task Force in getting copies of (or information about) the full-range of AVCF proposals – including those that were unsuccessful – was somewhat frustrating. Clearly our request raised questions of confidentiality that would have required getting clearance from the proposers before allowing their names, and summaries of their projects released to us. But in the end the real worry was that we might seek to 'second guess' past AVCF decisions. (We had no such aim!)

Under the leadership of Chancellor Gee and Provost Zeppos, Vanderbilt has come a long way very quickly towards shedding the top-down management style of the past, and creating an atmosphere in which faculty believe they are empowered, and faculty governance is starting to have real meaning. The effects on morale and productivity are palpable, and most welcome. But where information is power, the temptation to limit information flow even to colleagues engaged in a common enterprise, can be hard to resist. For a Senate Task Force charged with reviewing a historic phase of Vanderbilt's development, this did not make our task easy, and we would urge all those concerned to continue to press forward courageously towards the freest possible exchange of information. The great reward is that of common trust, confidence in a shared project, and the presumption of bi-lateral accountability. There is no healthier basis for an institution committed to free enquiry than receptiveness to constructive criticism from every quarter.

4.3 Questions of Balance

One issue with the current AVCF-funded projects is whether, as a whole, they are 'balanced'. This is a subjective question to some extent, but there are obvious tendencies evident in the current projects, some intended and some unintended, and it is useful to note them

4.3.1 Distribution of areas

It is clear that the current range of projects is weighted towards science, engineering, and medicine. There are twelve funded projects (counting the 'Proteomics and Functional Biology' initiative as one project rather than four), out of which eight can be classified as science (including medical science) or engineering, and one as a mixture of biomedical science and social science.

Some faculty comments indicate concern about the emphasis on science, medicine and engineering at the expense of the arts, humanities and social sciences (in which we include music, law and business). It does appear that there was some sensitivity to this issue, and in the second round of funding a conscious effort was made to encourage and consider projects in the humanities and social sciences. Three of the final twelve projects (Law and Business, Center for the Americas, and Center for the Study of Religion and Culture) have an emphasis that is not in science, engineering or medicine.

Is there a special problem with humanities, and social science centers? In 2001 Provost Burish asked the AVCF committees to go back and search further for excellent proposals in the humanities and non-quantitative social sciences. The *Program in Law and Business* had been approved, and the Center for the Americas had already been conditionally approved, But the only proposal in this broad area to come out of the final round was the *Center for the Study of Religion and Culture*, which was itself the product of much active encouragement and negotiation between the A&S Dean's office, and the PIs. The *Center for the Americas* was also very much an idea cultivated by the administration as well as the faculty who proposed it, and only at this date (March 2004) has it found a director. In scale and financial commitment these centers can be expected to rival some at least of the natural science/engineering/medical school centers. They will also occupy significant space. There may well be a 'carrying capacity' limit for these kinds of centers.

Provost Burish's concerns about imbalance were not obviously fully answered by adding one new humanities center (CSRC). How can this outcome be explained? Various explanations have been given:

- 1. Humanists typically work alone; collaboration is less attractive.
- 2. Assessment committees were biased against humanistic proposals.
- 3. Humanists are less experienced in writing grant proposals.
- 4. The AVCF requirement that projects be ultimately self-supporting discouraged many humanists from applying.
- 5. The AVCF format large expensive proposals that would otherwise never see the light of day was inappropriate to many humanities-type proposals.

There is no real evidence of committee bias against humanities proposals. However the active development treatment received by the CSRC could have benefited other proposals.

The AVCF program's focus on cross-school initiatives is potentially of great significance for faculty working in the humanities and social sciences because it enables them to tap into sources of funding (e.g. medical, NSF) otherwise unavailable to them, and with NEH funding drying up, this is especially important. We believe that a future AVCF program would have a larger pool of top quality humanities-type funding proposals if the following recommendations are implemented:

- * Recommendation: Invite the Associate Provost's Office of Research to engage in even more pro-active long term, deep-cycle, encouragement of collaborative (interschool, and inter-disciplinary) research especially in the relatively underdeveloped areas of the Arts/Humanities/Social Sciences bringing people together, helping them develop projects, and rework unsuccessful bids, funding pilot schemes, shaking existing trees, and planting new ones.
- * Recommendation: Grant writing development and support should be routinely available to all Vanderbilt faculty through the Associate Provost's Office of Research (or the Office of Sponsored Research, or wherever is most appropriate) to help develop research projects of all sorts so that they can successfully compete for both external and university funding. Hire one or more experienced professional grant writers for this purpose.
- * **Recommendation**: Make clear in any new competitive process that potential for attracting new endowment money is one of the forms of sustainability, and that for centers that bring visibility and prestige to Vanderbilt, this is entirely appropriate.

4.3.2 Funding levels

There was an emphasis on large, high investment projects, with annual budgets from about \$300,000 to around \$5,700,000. There was only one project (*Environmental Risk and Resource Management*) that could be regarded as a moderate-sized pilot project, with the emphasis on planning rather than immediate execution. This was a deliberate strategy in the SAPG (and later AVCF) goals: the intent was to fund bold initiatives that would make a strong impact in a short amount of time. There are obvious risks associated with this approach. If Vanderbilt wishes to have an ongoing process to develop centers of excellence (interdisciplinary or not), it may make more sense to support projects in stages, from projects involving two or three individuals, to pilot centers, to fully operational centers.

4.3.3 New versus old

There was an emphasis on new programs rather than strengthening existing programs. For example, the *Robert Penn Warren Center for the Humanities* in the College of Arts and Science is a successful program that currently operates on a moderate scale, and would seem to be a strong candidate for additional funding. The SAPG/AVCF criteria

did not explicitly disallow expansion of existing programs, but did express a preference for 'new investment' (SAPG) or 'bold' proposals (AVCF).

4.3.4 Research versus curriculum

There was also an emphasis on research rather than curricular initiatives. Only one program (*Law and Business*) appears to have a significant curricular component. Some faculty comments indicate a perception that the educational component of most projects was not seriously considered even though this was one of the SAPG's stated criteria. And with the recent new initiative in graduate education this dimension may need to become more prominent.

4.3.5 Degree of risk

At this point (March 2004) the current projects all seem to be moving forward 'successfully'. It may seem counterintuitive, but perhaps this is not a good thing. Perhaps we need to have some projects failing as evidence that Vanderbilt is trying truly new things, taking risks.

- * **Recommendation**: Consider whether external funding is always an appropriate aim for proposals from the humanities and social sciences. Encourage proposals in these areas. Assist investigators in these areas to write proposals.
- * **Recommendation**: Where there is an opportunity to move to a new level, consider building on existing strengths rather than only funding completely new projects.
- * **Recommendation**: Give greater consideration to curricular initiatives, and impact on graduate education, when evaluating new proposals (or funding their continuation).
- * **Recommendation**: Address the issues of funding levels and degree of risk by funding smaller and riskier proposals (see below).

4.4 The Role of the AVCF in Achieving SAPG Goals

The SAPG's interdisciplinary and interschool initiatives committee, from which the AVCF arose, was charged with bringing together resources from different schools and departments while not weakening those units.

From the comments received, particularly from those involved in the AVCF-funded projects, there is a feeling that the AVCF has been a success in beginning the process of breaking down longstanding barriers between schools and departments. For a long time such barriers have been fostered by Vanderbilt's ETOB funding system. The AVCF does seem to have been a catalyst that has changed the way people at Vanderbilt think. Faculty are now much more willing to consider interdisciplinary projects, and there is also a feeling that the university supports such efforts. There is a significant amount of faculty enthusiasm for interdisciplinary projects. Although there is still much to be done, this can only be viewed as a positive change.

On the other hand, it is not clear whether AVCF projects have strengthened existing departments, or have taken resources away from them. For example, building space has

been taken away from departments and given to centers, and without new construction it is difficult to see how this can avoid being a zero sum game. (Buttrick will help here.) Suitable arrangements to handle time commitments are still under construction, and it is not clear whether the loss of faculty to new commitments in the AVCF centers is being balanced by new resources, for example to cover undergraduate teaching. We have not been able to gather hard evidence on this issue, but it is something which should be assessed in detail once the AVCF projects have been in operation for a reasonable period of time.

One of the subsidiary goals of the SAPG/AVCF process was to 'enhance the learning environment and opportunities for ... students'. There is some sentiment that the AVCF process neglected this, with little consideration being given to educational issues. Some comments raised issues relating to graduate education. For example, it was suggested that for interdisciplinary centers to make a true impact on graduate education, graduate students should be able to 'belong' to such a center, rather than being required to belong to a traditional department. Without this, graduate students wishing to work in an interdisciplinary area cannot begin preparation to work in that area without first attaching themselves to a suitable faculty member. Another issue is that the current move towards decentralization of oversight of graduate education to the level of individual schools means that there is no support structure for graduate education in interdisciplinary centers.

There are many ways in which new centers can enhance graduate education. New dissertation topics can be encouraged by centers, by engagement with visiting scholars from outside the university and by special conferences. Such centers will promote greater cross-disciplinary membership on dissertation committees, co-taught graduate courses using faculty from several distinct fields, and new course offerings that cross over standard disciplinary boundaries.

Centers can create a stronger presence for themselves on campus by promoting crossdiscipline certificate programs such as that offered in the Law and Business Program.

- * **Recommendation:** Investigate (perhaps in 2005-6) in detail what effect the AVCF projects are having on traditional departments and schools.
- * Recommendation: Develop clear mechanisms to deal with faculty time commitments for interdisciplinary work, as well as issues such as how tenure and promotion decisions will be made for faculty involved in such work.
- * **Recommendation:** Develop models for integrating interdisciplinary centers within the new plans for graduate education.

4.5 Meshing AVCF Funding with other University Research Support

Mark Ellingham and Ann Kaiser met with Dennis Hall to discuss other university research funding mechanisms. The Research Scholar and Discovery Grant programs in University Central, and the Discovery Grant program in the Medical Center, appear to be

popular mechanisms for requesting funding for pilot projects involving a small number of investigators, usually a single investigator. Typical grant amounts are in the neighborhood of \$50,000 for the Discovery Grant programs, and of \$15,000 for the Research Scholar program. The Discovery Grant programs are intended to lead to external funding. However, we have no information on how successful they are at this, and we suggest this as a question worth pursuing.

It is also apparent that there is a gap between the amounts provided by these programs, in the \$10,000 to \$200,000 range, and the amounts provided by the AVCF, usually more than \$500,000. If the AVCF were to operate on a continuing basis, there would still be no process in place whereby to smoothly expand programs that prove successful, from the level of an individual investigator, to several investigators, to a fully functioning center. We recommend that the university provide support for programs involving several investigators, with funding in the range of \$100,000 to \$500,000. Funding in this range might also be appropriate for venturesome but high risk projects that might provide large payoffs if they succeed, but which have a sufficiently high chance of failure that the university would not initially wish to invest millions of dollars in them.

- * **Recommendation**: Investigate the extent to which Discovery Grants have led to external funding. If not, determine whether this is a reasonable goal. If it is, decide how it should be better achieved.
- * **Recommendation**: Provide a funding level intermediate between Discovery Grants and AVCF funding, in the \$100,000-\$500,000 range. The criteria for judging these proposals should be similar to the AVCF process without the need to reach self-funding in the immediate future.

4.6 'Carrying capacity'

One of the questions raised under "Thoughts and Issues" at the end of a document from late 2002/ early 2003 summarizing the AVCF funding cycle, asks: "Do we have enough infrastructure to accommodate and make the most of a dozen or more new 'centers and institutes'? (space?)". This issue has more recently been raised in terms of Vanderbilt's 'carrying capacity'. Leaving aside the question of raising additional endowment capital for a new ACVF round, a cautious response to the carrying capacity question would give further weight to the argument for a pause in making new awards. But the evaluation of an academic institution's carrying capacity can be skewed by the assumption that any successful center will need a suite of dedicated offices or labs. Even for humanities and social sciences type centers, it is always nice to have dedicated physical space (Buttrick, for example), but the real question here is not space so much as whether there is untapped synergy among faculty that a new center could develop, however virtual or minimal its physical campus footprint might be. An office, access to campus meeting rooms and a thriving website is often quite enough for a successful center.

Consideration of VU's carrying capacity for Research Centers is hampered by a one-size-fits-all approach. Just as there is no limit to the amount of individual research the

university can support, there is no intrinsic limit to the amount of collaborative research it can support where demands for space are modest. This is true wherever the main activities of a center are talking, writing and analyzing data.

* **Recommendation**: Apart from budgetary constraints, there is no reason to slow down the development of 'low maintenance' top quality intra/inter disciplinary research centers

4.7 Long Term Financial Sustainability of Centers and the Costs and Benefits of Seed Funding of Projects

The issue of financial sustainability (#10 of the AVCF's criteria for selection of new programs), has been the subject of much comment. Much uncertainty is attached both to whether proposals being considered will generate long-term funding, and what kinds of funding are appropriate to what sorts of center, especially where dedicated endowment funds are in short supply. We consider here various funding options, we propose tough evaluation standards for centers requiring continuing financial support, and we weigh the merits of more pilot schemes/seed funding of a wider range of promising proposals in the future.

4.7.1 Long term funding options

4.7.1.1 Outside Research or Support Grants: These multi-year grants require significant work locating potential sources of support, writing grant applications and often require commitments to pursue particular lines of research. They represent fairly risky and uncertain funding sources that are dependent on current government policies, foundation endowment levels and corporate profitability. They could either be large grants or else may require a number of smaller grants to support the full budgetary needs of a center. These private donor, corporate and foundation funding sources are also possible sources for future center endowments.

4.7.1.2 Center Endowment: This is a one time large grant or commitment to permanently support a center. It requires that a center's goals and objectives are consistent with the major interests of potential donors. Endowments require generally require sustained periods of cultivation of donor relationships educating donors on the value and benefits of the center as well as trust building in the center director's vision and effectiveness. Such donor cultivation takes a much time and energy by the head of center and often more senior academic officials and often ends in failure. Hence, it is an uncertain strategy, though it is the preferred funding source since future fund raising needs are reduced or eliminated. And it is the most plausible source of funding for Arts/Humanities/Social Science-type centers. If it is difficult to raise endowment dollars in these areas, how can we best educate, cultivate, our potential donor base? (Talks from charismatic faculty at dinners for select donors?)

4.7.2 Short Term Funding Support

These represent annual grants that lack guaranteed renewal, but could implicitly commit to renewal. They tend to be for smaller amounts (i.e. \$25K - \$50K) and require a number of center supporters to cover center expenses and to diversify across funding sources to minimize the risk of failure of some donors to renew. This generally requires locating funding sources that identify closely with the research and teaching goals and missions of the center. This also typically requires the center director to develop strong rapport with donors by publishing newsletters, visits and phone calls, sponsoring particular donor specific research projects, holding conferences of interest to donors (to which they are invited) and pursuing research and teaching goals that donors consider important and which are not being fully met by existing university academic and research units. Again, these donors may ultimately be potential targets for center endowment support.

These three approaches generally rely on funding support from government units, corporations, foundations or private individuals with some tie to the university. This process requires careful targeting of the potential donors, in terms of their inherent interests, programs, agendas and other motivations for supporting the university's research and teaching goals. Center funding requires a credible senior researcher or dean or the chancellor to champion the center goals to potential donors. However, the central administration and the deans may be conflicted in supporting center funding given the other university and department funding needs, which these same donors could be led to support.

4.7.3 Other Forms of Internal Support

4.7.3.1 Funding from Related Academic Departments: This requires strong backing from the department head and dean, who may have conflicting resource needs. If the center develops new course initiatives that garner strong student interest, it may be possible to obtain university or school wide support/possibly through tuition credit or, if centers are able to build new research facilities which open to other faculty/graduate students, it may be possible to join in large grant applications, to charge user fees or through transfer pricing to capture some overhead costs.

4.7.4 Transformations and Endgames

4.7.4.1 Affiliate or Merge with an Existing Center or Academic Departments:

Ultimately, it may be optimal to continue the mission of the center in a different form to obtain continued funding. One alternative is to strongly affiliate the center with an existing department or school after an initial funding period and possibly return the faculty to their original departments. By limiting the funding period to 3 years with only the hope of small additional funding, the university is certainly encouraging this outcome when no further outside funding is immediately forthcoming and when there is reasonably strong support from related academic department to continue the mission of the center or give it more time to attract outside funding?

- **4.7.4.2 Liquidation:** One alternative is to liquidate the center after an initial funding period and reallocate faculty to appropriate academic departments. Should this outcome be construed as a failure? Not necessarily. Even a short-lived center can generate new faculty/student expertise and research interests and greater cross department collaboration plus new research output.
- * **Recommendation:** Apply tough standards of assessment, when evaluating the success of a center, comparing its performance to that promised by other candidates for capital funding, and linked to the full range of outcomes.
- * **Recommendation:** Develop general and specific 'sunset' provisions for terminating centers and programs that have outlived their promise.
- * **Recommendation:** Short annual progress reports should be required (if they are not already), with a summary of expenditures and the reasons for major expenditures.

4.7.5 Evaluating the Financial Viability of Proposed new Centers and Institutes

- **4.7.5.1 Assessment of Probability of Center Funding:** How well developed is he mission statement? How well known is the center director? How frequently have centers with similar goals at other universities received outside funding?
- **4.7.5.2 Assessment of Success in Meeting Center Goals:** How well has the center met its proposal goals? What actions in the AVCF proposal have or have not been successfully reached? How has the center improved the research and teaching missions of the university and the affiliated academic units? To what extent has the center enhanced the university's reputation and visibility? If continuing funding support is needed, could those funds be more effectively used in supporting or encouraging new ventures?
- **4.7.5.3 Funding Success:** Are the existing centers receiving a sizable part of their budget from outside sources? Are there current funding initiatives that look likely to yield further center funding in the next couple of years? Are affiliated academic units willing to lend funding support and help in fund raising? Are centers drawing resources out of departments in order to sustain themselves?

4.7.6 Alternative Seed Capital Model

Many have commented on the fact that the AVCF process was a winner-take all competition, and it has been repeatedly suggested that a more diverse range of outcomes might be allowed for in future. Alternatively, a seed-capital program might be established to help develop fully-articulated proposals for subsequent capital funding.

In the private equity market, large venture capital investment is generally preceded by smaller seed investments that allow a venture to develop a prototype or acquire crucial assets needed for product development. In the current AVCF approach, we have already jumped to the second step in this development process.

One approach to further pursuing the academic venture capital model is to create a smaller fund for developing various research ideas that may or may not have a cross-school or even interdisciplinary focus. This could be a competitive process open to all research faculty, where small grants are given to accomplish very specific exploratory research goals. If successful, the seed capital fund might offer both administrative support to seek outside funding or modest follow-on funding to further pursue some exploratory research agenda. The challenge to making this a successful initiative is to make the research proposal stage truly competitive and not based on some fairly fixed allocation process across different schools.

To implement such an approach, some key issues must be resolve. Most importantly, what types of research proposals and goals will be considered? (e.g. interdisciplinary, path breaking new technology, clearly fundable within a short horizon, particular research objectives). What level of annual financial commitment is the University willing to make to such a Seed Capital Fund? What range of funding support for individual proposals might be available and for what duration? In allocating funds, the university would need to address how the competitive evaluation process will be structured? (i.e. school wide limits on research funding) and whether administrative personnel with significant grant experience be available to faculty seeking to apply for their first grant? Finally, it is important to resolve how the success of an exploratory research proposal might be measured. After the seeding funding period is exhausted, the obvious next question is whether the University is willing and able to continue funding some of the most promising projects that are not yet able to obtain sufficient outside funding.

To create good incentives to generate promising seed grant proposals, there needs to be a path whereby a few successful new academic ventures may grow into fully-fledged centers. This then raises several related questions. Is the university willing to budget some level of annual funding for follow on support of seed funding projects that continue to show high promise? What level of follow on funding would be available for such promising individual seed projects? How does the competitive evaluation process for follow-on funding differ from the initial seed funding evaluation process in terms of what additional hurdles need to be past and how much more likely does project success and future outside funding need to be. To what extent will the University allocate the time of some of its experienced fund-raising staff or research grant administrative staff to help locate outside support for promising projects?

4.7.7 Seed Funding of Small Research Proposals

4.7.7.1 There are many potential benefits of seed funding for the University. It accelerates development of new research/expertise, while bypassing department focus and loyalties. It involves a modest amount of money and can yield a relatively rapid initial assessment of project promise. The annual funding levels can be limited to modest capital expenditures by University. It would offer a research funding source to faculty in

departments where government/industry funding is doubtful. Finally, its low initial project support level would still allow many innovative, high-risk projects to be supported, including projects proposed by less-senior faculty with little or no track record.

- **4.7.7.2** While there are clear benefits to the Seed Funding Proposal, it must be recognized that clear challenges also exist. There could large demand for funding with potentially large proposal evaluation costs in terms of faculty time. Many projects will not realize clear evidence of promise in short run. Alternative sources of funding may also be lacking or highly uncertain at the end of initial seed grant period, with additional university resources needed. Subsequent outside funding is likely to require externally recognized faculty/research credentials, which less-senior faculty will generally lack. Faculty expertise in nurturing and developing seed grant projects may be lacking in many cases. Finally, supervision of the expenditures in a large number of seed grant projects could be challenging.
- * **Recommendation**: Future AVCF programs should entertain a range of successful grant outcomes which may not always involve subsequent outside funding. Seed grant proposals might have the objective of supporting specific exploratory proposals / pilot studies that might merit further development and result in internal academic unit funding if successful.
- * **Recommendation**: Expand the University's Discovery Grants in terms of its overall funding level, broaden the types of proposals that are solicited and its ability to fund somewhat larger projects.

4.8 Evaluating success

In order to preserve the new momentum towards excellence inaugurated by the AVCF and to ensure that the program represents more than a brief golden era in Vanderbilt's history, we recommend that a rigorous program of assessment be established, even as we recognize the challenges involved in doing this. The reasons for a certain toughness in evaluation stem from the exceptional standards appropriately set by the initial AVCF selection process, and the associated strategic planning goals (taking research at Vanderbilt to a new level of quality and prominence). Where such centers are genuinely self-sustaining¹ some of the burden of proof will be carried by the capacity to attract external funding. But where internal and/or endowment funds are at stake, the highest standards of achievement are the only protection against the suggestion that those funds might be redeployed elsewhere.

This does not mean that measures of a center's success are uncomplicated. It will be necessary to find some way of distinguishing the output that individual faculty members would have produced anyway, from that which flows from their association with the center. In any case, these measures would include:

20

¹ There are often indirect costs associated even with 'self-sustaining' units. It is not clear how far these are taken into account.

- a) Quality of research, scholarly works, conferences, and other output of the center.
- b) Improvements in composite ratings by US News & World Reports² and similar metrics.
- c) Number of degrees at each level granted per year.
- d) Quality of placement for graduates, especially faculty appointments.
- e) Number and quality of applicants for openings in comparison to supply (UG, G, post-docs, faculty) both in relation to the center and associated departments.
- f) Invited talks at prestigious conferences and institutions.
- g) Publications number and quality of journal or publisher.
- h) Positions on editorial boards.
- i) Professional society leadership.
- j) Awards, prizes, appointment to NAS, NAE, NEH etc.
- k) Public awareness of research, publications, and other scholarly output.
- * **Recommendation.** For future research funding programs, have the same committee that evaluates initial funding proposals also evaluate the annual progress reports of ongoing grant recipients. Make it policy that related faculty neither vote for be present at votes concerning funding renewal.

4.9 Different Models

4.9.1 Expanding the Scope of the AVCF

The AVCF program was distinctive in targeting cross-school initiatives, challenging faculty to develop research connections that would previously have been maximally inhibited by ETOB considerations. If Vanderbilt is to advance to the front rank of American universities it needs to pursue, even invent, new fields of research. It was quite properly thought that cross-school initiatives are a rich vein to be explored, that they offer real possibilities of attracting external funding, and that they are most in need of initial internal investment. However, the value of an AVCF program – of providing the start-up capital investment needed for new centers and institutes – is clearly not limited to cross-school initiatives. Bold new research initiatives with the potential to become programs of national stature may take other forms, including inter-disciplinary centers (in the same school), or radical extensions of work done in a single department.

* **Recommendation**: Broaden the remit of a renewed AVCF program to include a wider range of opportunities for capital investment in institutional innovation and renewal.

2

² These are based on opinion polls of deans and associate deans and by metrics such as retention, faculty resources (faculty as a resource for student learning such as class size, highest faculty degrees, etc.), student selectivity, financial resources, graduation rate (normalized to that expected for characteristics of students), alumni giving rate. For graduate programs, the number of PhD's granted, both total and per faculty member, research expenditures in total and per faculty member, and the number of faculty with membership in National Academies. It is important to note that ratings for new cross-disciplinary fields are not available from US News and World Report. Academic leadership in research may often mean moving in uncharted water.

* Recommendation: Consider whether AVCF-type funding should be for interdisciplinary projects only, or should also be available for discipline-centered projects now that some progress has been made in breaking down barriers between disciplines.

4.9.2 Funding theologies: big bang v. continuous creation

There are different models of creation: big bang, and continuous creation. As things stand, the AVCF was a major event in the history of Vanderbilt, an extraordinary investment event, a 'big bang' destined to change the face of Vanderbilt. It may well be that it will not soon be repeated, at least on this scale, and it is entirely appropriate that we focus for the moment on evaluating and shaping the success of the projects we have only recently launched. But the springs of institutional creativity among faculty are not so readily switched on and off, and there is a strong argument for trying to convert the AVCF into a more modest ongoing process. In this way, faculty can continue to work on smaller projects in the reasonable hope that they might be allowed to develop into something larger if they show exceptional promise.

While it may be true in certain areas that Vanderbilt has reached its carrying capacity for new centers, we do not believe that this is true across-the-board. There is a need for recurrent capital funding if Vanderbilt is to maintain vital interdisciplinary programs far into the future. It is not likely, nor is it desirable, that all of the present centers should last indefinitely. Meanwhile, it is essential that the university provide a path for new ideas to arise and grow, so that resources are not permanently locked onto a path that was defined during the three years of the original AVCF. Eventually, some of these new ideas will grow to fill the interstices of the existing programs, either to merge with or to replace them. The process should be as fluid and flexible as possible, allowing Vanderbilt to respond to new ideas and discoveries. Our sense of the importance of truly rigorous assessment of the first batch of centers is tied to this vision of interdisciplinary, and cross-school initiatives as a scene of continuous creation, and the need to maintain a spirit of institutional restlessness.

* **Recommendation:** Establish a rolling capital fund to continue in a more modest way the work of the AVCF on an annual basis.

4.10 Recurrent themes from our survey responses

We requested information from a number of people involved in SAP over its recent history, and have received a number of replies. Although some respondents felt that the process operated well—a perspective that we would naturally expect to be held by the successful applicants—a number of respondents expressed a sense that if another round of AVCF is undertaken, improvements could be made. Here are some of the specific suggestions that we noted:

1. The majority of funds went to Medicine, the Sciences, and Engineering, who were able to gear up to apply more quickly than the humanities and social sciences. Although this

priority may in fact reflect the greater "venture" potential of these fields in terms of eventual funding outside university channels, it suggested that the process itself was in some ways unduly weighted towards the sciences, engineering, and medicine.

- 2. Vanderbilt needs to develop ways of using Venture Capital to fund projects that might never become financially self-sustaining but nevertheless would enrich the university in all the non-economic ways hoped for by strategic planning in general.
- 3. Several respondents suggested that the university had adopted a funding approach that was too much "all or nothing." More intellectually rigorous and cutting edge work may well be best accomplished if large entities were broken down into a series of smaller working groups focused more narrowly on a topic of interest to all. (Clearly this is already happening *within* the CSRC, for example.) We are failing to fund smaller scale proposals, even though in many demonstrable cases, smaller and more focused centers might be more successful, and cumulatively bring more visibility to Vanderbilt, than large, generalized ones.
- 4. Respondents noted that over time—even a relatively brief time—some of the most intellectually "cutting edge" aspects of a center can easily get watered down to make it more generally palatable. Doing so may, however, move the work away from the interesting margins on which it originated, and towards a mainstream of scholarship in which the work would be more humdrum and predictable.
- 5. Several respondents expressed uncertainty or frustration over the relationship between existing departments and special AVCF-funded centers located fully or partly within them. To what extent does the individual department suffer if limited resources go towards the center? How can the existing graduate programs be modified in ways that make them more responsive to the cross-disciplinary structure of centers?
- 6. In a related matter, budgeting practices at Vanderbilt are still Byzantine, and centers have a hard time managing money that has to be spent across different department or schools of the university.
- 7. The criteria for funding existing centers were often not made clear. AVCF needs to create a set of universally applied, transparent, clear guidelines so that successful and unsuccessful proposals receive the same type of consideration, and helpful critiques are offered for the improvement of unsuccessful proposals.
- 8. The AVCF has seemed to some to be a handmaiden of the academic "star" system—that is, funds tended to go to big name faculty rather than to more junior people, even though the more junior people might well be the ones whose potential for future "cutting edge" work is considerably stronger. A balance needs to be struck in AVCF funding between rewarding existing stars and enabling rising stars to reach their full brightness.
- 9. Several respondents expressed the fear that once created, interdisciplinary centers may become institutionalized and lose their edgy quality of intellectual exploration. There

need to be clear mechanisms for review and, if appropriate, disestablishment. For the humanities, this is particularly an issue in light of the proposed renovations to Buttrick, which will afford prominent and prestigious space for major centers. For some of the respondents, it all seemed designed to make the existing centers a bit too comfortable—fat and happy, and therefore less likely to do the really challenging work.

- 4.11 The importance of (and challenges faced by) interdisciplinary humanities-based centers.
- **4.11.1** In considering the question of sustainability we have already remarked that humanities-type centers will often require (and merit) internal endowment allocation (or targeted endowment searches by the development office) rather than having their success measured entirely in terms of ability to attract external funding. The reasons for this are many.
- * External funding is much harder to find in the Humanities.
- * (And yet) vibrant Humanities centers add significantly to a university's ability to hire top faculty, and recruit top graduate students, as well as bringing the very best scholars to campus for lectures, workshops and conferences.
- * In this way, and through publication and media/press attention, the university's broader visibility and reputation is enhanced.
- **4.11.2** There are many other opportunities for developing interdisciplinary centers at Vanderbilt that will not always be cross-school, and without exceeding our carrying capacity (see 4.6 above), and many advantages in so doing. (The breadth of disciplines already represented in the College of Arts and Sciences alone makes it clear that there is a certain artificiality in the idea of the "cross-school".) In the social sciences, for example, many share a common interest in measurement techniques, statistical analysis, human decision making processes and organizations and organizational behavior and the problems of corruption, graft, political opportunism, and inter-department rivalries and lack of communication or coordination. Having knowledge of broad theories developing in one corner of the social sciences can often be useful to researchers in other social sciences, given their focus on various human behavior. There are also natural bridges between certain fields that Vanderbilt has not exploited. Economics with History, Anthropology, Law and Owen. Owen (Economics, Marketing and Human Behavior and Organizational Studies) and the Medical School and Psychology and Sociology are other areas that have potential synergies which have not been exploited. There are unexploited opportunities for bringing together the various interests in theory, method, translation and critique in the language departments, in Comparative Literature, and in Philosophy. An international studies center could link international economics, business, foreign languages and areas of history, cultural anthropology and the fine arts. Infomatics could also serve as focus point of interdisciplinary research in other parts of the university. These are just examples of areas of interdisciplinary research that have been successfully developed by other universities. There are many, many more. Many of these are, in principle, ripe for capital investment.

- **4.11.3** It is not clear that the criteria guiding the AVCF process were best suited to the enhancement of humanities (and arts and social sciences) research on campus. In particular, the opportunity was missed to enhance and expand the existing Robert Penn Warren Humanities Center, perhaps because it did not qualify as a 'bold new initiative'. And yet the Warren Center struggles to compete with the Institute for Research in the Humanities at the University of Wisconsin-Madison, with the Walter Chapin Simpson Center for the Humanities at the University of Washington, with the Interdisciplinary Humanities Center at UC Santa Barbara, with the Stanford Humanities Center, with the Institute of Humanities Research at UC Santa Cruz, and so on. Serving as a home for a range of low modestly funded pilot projects is one way the Robert Penn Warren Center could be expanded. It already does a great deal on a small budget. But if Vanderbilt wants to have the kind of pre-eminent Humanities Center found at Wisconsin-Madison, Brown, Santa Cruz, Santa Barbara, Illinois or Stanford, we need to consider
- (a) matching the institutional arrangements elsewhere for faculty teaching-release time (at Wisconsin-Madison, for example, half-time reductions in teaching loads for five years, one semester/ one year internal research fellowships etc.). Presently, only faculty who teach 3 courses per semester receive even minimal relief from teaching, in the form of one course off. Clearly, this is a difficult balancing act for a university still deriving most of its revenue from undergraduate teaching. But moving towards a five star Humanities Center model is consistent with the projected hiring a cohort of 100 new faculty (providing compensatory teaching resources), and with the new investment program in graduate education (announced October 2003).
- (b) bringing in more than a single outside scholar each year. A core group of three to four faculty from different related fields would appear minimal. Typically, humanities centers flourish in large part by enabling faculty from the home institution to interact with a number of outside scholars interested in the same areas.
- *Recommendation. Consider revamping the Robert Penn Warren Center for the Humanities into a five star Humanities Center, bringing the arrangements for faculty teaching-release time, and the program of visiting scholars, into line with the best practices at competing institutions.
- *Recommendation. Periodically have a committee evaluate what types of interdisciplinary centers are developing at other major research institutions (and elsewhere), along with their goals, accomplishments, faculty provisions and funding arrangements.

5. Appendices

Appendix 5.1 Extracts from faculty feedback to the Task Force

Note: the Task Force does not necessarily endorse the various suggestions made below, but deems them worthy of further discussion. Suggestions which bear primarily on financial issues are grouped separately.

General Comments

"The SAP-CAS process was extremely open, with a working website available to the College Faculty."

"When I first came to Vanderbilt from the private sector (October, 2003), I contacted various faculty across the university and was a bit surprised that collaboration had not been a priority."

"I just recently came to Vanderbilt (August 2003) and I am truly surprised by the huge effort Vanderbilt makes with respect to cross-school initiatives. I am amazed by the number of centers that sponsor research and the number of opportunities for faculty and students. This is way more than what I have seen at ***."

"The lack of programs in the Humanities was not for want of trying by both SAPG and SAP-CAS. Several proposals that SAP-CAS considered seemed to implode shortly after creation. The Arts Center ran into trouble because a substantial fraction of what was needed was for pure teaching, and lay outside of the SAPG quidelines."

"Humanities and social sciences faculty are not skilled in these [grant-writing] processes, and they do not generally research and write collaboratively. As a result they were almost entirely left out of the first cycle. (Part of the problem was also [the then Dean's] very closed process of formulating the strategic plan for the College.} SAPG has a view of interdisciplinarity that was a scientific model and not a humanistic one. As a result, they did not view what was going on, or what was proposed by the humanists as interdisciplinary."

"I believe also that doctoral fellowships need to be created and associated with such centers, so that top-notch doctoral students become the travelers that bring the rest of us together. One of the things I've missed the most from my former institution is the feeling of being part of inter-disciplinary dialogues, so I hope that emphasis upon centers continues and increases."

"A series of IGPs (interdisciplinary graduate programs) should be created around > cross-school initiatives. This would allow smaller departments to benefit from the critical scholarly mass that is created by a particular initiative. In some cases,

these initiatives should be able to create IGPs that are then able to seek training grants or other external funding."

"Encourage interdisciplinary teaching in addition to centers of research excellence. My belief is that this should ideally occur at both undergrad and grad levels."

"There is a serious gap between the "new" model of the Graduate School and cross-school centers. A number of interdisciplinary programs have graduate students and grant their own degrees. However, since the administrative functions of the grad school have trickled down to the school level, there is no apparent oversight of said programs. There is no structure to handle admissions, aid and curricula that is independent of a particular department or school. Thus, while the programs might seem interdisciplinary, the students end up being handled in the traditional way, within a single discipline. We cannot foster truly interdisciplinary programs until the issues of governance and administration of grad students are addressed."

"I think the initiatives have been seen as based on research and scholarship (good things in themselves) but have not been pressed to think about the curricular implications, especially at the graduate level. ... I suspect that these programs are encountering similar problems in working across schools with different Deans. I think some mechanisms should be in place that allows for common solutions to common problems. There will also be issues about faculty lines, faculty appointments, and faculty review. Tenure and promotion will become issues for faculty who do interdisciplinary research in cross-school programs."

"I believe that cross-school initiatives will, when successful, generate a set of challenges to the standard structures at VU. There will be more pressure to seek joint appointments across schools. To the extent that there are curricular implications, there will also be issues about faculty lines, faculty appointments, and faculty review. Tenure and promotion will become issues for faculty who do interdisciplinary research in cross-school programs."

"There is great importance for the role of cross-school centers and programs at Vanderbilt. I hope these initiatives continue & even expand. Encouraging cultural & ethnic diversity should be a priority."

"Smaller centers around clearer topics. For example, in addition to the Center of the Americas etc. there should be smaller Centers (100 K or so) based on very specific questions. At *** we started a cross-school initiative (200K for 3 years) based on the theme of Culture, Language, and Cognition. The initiative brought people from different schools and disciplines together. We initiated meetings, little sit-together (coffee) lunches and a faculty and graduate student seminar. Eventually research grants as well as cross-school graduate student collaboration evolved from this. The smaller centers are often more effective as the director etc. are centered around a topic as well as interested in the topic. They know the

people in the field etc. and really want to get things done, rather than to manage and distribute money they are more likely to engage intellectually as well."

"One caveat, we need to establish programs, institutes, etc. as we are doing. At the same time we have to avoid setting up competitive entities. There is beginning to be competition between the departments and the programs for the best students, for faculty time, for TA slots etc. Some thought has to be given to this issue as we establish new entities."

"Why focus interdisciplinary support on its transinstitutional forms? Surely there is a great deal of room for interdisciplinarity within (for example) the College."

"I believe that most productive research is conducted alone or in small groups, seldom with more than two people working together. It involves hard work and little infrastructure. I'm afraid I view cross-school centers and initiatives as financial sinks that do not insure or likely produce net additional research output from the faculty. It does not require a secretary, dinner at a nice restaurant, cocktail reception, or separate office from the one assigned by one's disciplinary department."

Financial Concerns

"[Our] program is now in the phase-out stage of funding from the AVCF and is drawing heavily from funds the program has attracted from donors and grants, including a recently endowed chair for the program. I believe this is how the AVCF is supposed to work, both in terms of fostering cross-discipline collaboration in both research and teaching, and attracting other funds and programs that build on the seed-money funding from the AVCF. I am deeply grateful for the AVCF funding, and believe it worked. I can't imagine this program succeeding, or succeeding in attracting the level of outside funding now coming in, without the AVCF money that enabled us to show donors what we could do."

"Some of the criteria did prove harder to satisfy than others. For the humanities (and to some extent the social sciences) #s 7 and 9 raised difficulties...most administrators read those criteria as bringing in grants rather than endowment, and the humanities and social sciences, quite simply, cannot generate new investments in the form of grants. This skewed the process against the humanities and social sciences."

"The humanities must follow a different model—these projects will succeed if they are exciting and innovative enough to attract endowments that will fund the new centers permanently. The Center for the Study of Religion and Culture and the Center for the Americas, in this sense, are test cases."

"There should probably be a separate program for the humanities and the social sciences which emphasizes how to raise monies outside the university so that people get more training and help in writing grants."

"I hope the AVCF is renewed, but with a long-term view toward (1) open, transparent, and fair deliberation, decision-making and competition for funds; (2) support for necessarily time-consuming development of interdisciplinary opportunities for collaboration; (3) sustainability of the overall fund for the support of future initiatives; and (4) recognition that certain areas of the social sciences and virtually all the humanities may never be an engine for external funding, but are important for other intrinsic reasons and so deserve more university support."

"Here's one issue: budgeting. The effort to unravel shared costs is a significant and unreasonable burden on PIs. These considerations are tolerable in the absence of complications, but complications almost always erupt and the situation evolves into a black-hole time sink."

"With the exception of the Discovery Grant program which allows for increased funding if the investigators come from two different departments in two different schools at Vanderbilt, there appears to be a lack of other initiatives to formally and financially facilitate cross-pollination of research efforts. On the other hand, there is strong faculty initiative to individually seek out experts within the University community to collaborate with in scholarly efforts. I applaud the University's efforts to facilitate interactions through the creation of cross-school centers and programs at Vanderbilt."

"The financial and intellectual models that seem to operate at Vanderbilt preclude true interdisciplinary work. If such work were successful, one would anticipate that new fields would be born. Yet currently the intellectual rights to fields are held by departments, nested within schools. To birth new fields, we would need mechanisms for sustaining colleagueship across schools and departments in ways that offer identity to people so engaged. I think that would mean a few immediate steps and a few longer-term prospects. Immediately, what is needed is support for graduate students who work in interdisciplinary centers that are not tied explicitly to any one person's research agenda or grant--to promote center and not mere collection. Longer term, a mechanism needs to be in place where centers can assume the current functions of departments--grant degrees and otherwise support intellectual development. Both of these goals need a funding model that allows for renewable resources (e.g., a percent of indirect). Otherwise, people in a Center are participating in an institutional structure where there is no pathway to the future. A conception of a center as a limited term entity tends to invite less participation."

"My colleagues, and I, have been working vigorously to establish cross-school collaborations since we arrived here a year and a half ago. We have found that there are serious impediments to getting this done. Chief among them include the

financial model here that makes it difficult to establish cross-school initiatives without trespassing on someone's expectations about financial stakes. We have also found it difficult to interest individuals in cross-school educational programs."

"There appears to be a tradition of power (with respect to finance, policy, and educational decisions) centralized within deans and within departments. This makes it very difficult to do things that cross departmental lines. In my view, the fledgling centers are not given much to work with to overcome that inertia. The only one I am personally aware of, does not receive a portion of the overhead that it generates, so has little direct control over its own financial future. It does not control any centralized university space, making it very difficult to develop technical infrastructure (for example, technological infrastructure) that would support common intellectual work."

"One idea might be that some of the funds being developed for graduate education would go to the centers, with decisions about their use to be made by a board of center members. I would love to see these centers eventually house cross-disciplinary programs and faculty governance structures that are separate from those of departments. My general point is that in generating a more interdisciplinary university, it is helpful to think not just about total dollars, but also about the vision for those dollars and who participates in those decisions."

Appendix 5.2 Survey Questions sent out by the Task Force

5.2.1 Request for Feedback on AVCF process sent to 50+ key participants

REQUEST FOR FEEDBACK ON THE AVCF PROCESS

Faculty Senate established last semester (Fall 2003) a Task Force on Cross-School Initiatives and the AVCF (Academic Venture Capital Fund). The purpose of this Task Force is to review the SAPG/AVCF process and to make recommendations for future implementations of such a scheme.

Please find enclosed a Historical Overview of this process drawn up by Danielle Mezera, a document being sent to some 50 of the people involved. This is a follow-up to the email you should have received last week.

We would like you to read through this document and in the light of your own experience of participation in the process, to consider whether this account needs to be corrected or supplemented in some way. [This account was prepared on Jan 28 2003, since which time the third funding cycle has been completed, and the AVCF has been put into 'pause' mode. We are aware, too, that there is a significant omission of the work of SAPCAS in Spring 2001.]

Our report will be of a general nature and no names will be attached to any comments you might make without express permission. All responses will be treated as confidential to the Task Force. It would be helpful, but it is not essential, if you could consider some of the questions formulated below.

- 1. On the basis of your own participation in the Strategic Planning process and/or the AVCF, are there any specific additions or corrections you would like to make to this overview?
- 2. In July 2000 the SAPG advanced 10 criteria for the selection of projects (see the attached document, p.2; largely repeated in the second Approval Cycle, p.4). These were:
 - *1. Proposals should help advance Vanderbilt University to the front rank of American universities, especially in the field of the proposal itself.
 - *2. They should link the faculty of the different schools rather than being confined to a single school.
 - *3. They should involve a broad range of faculty rather than a few individuals.
 - *4. They should help to define the interdisciplinary character of the individual schools and the university; they should be distinctive and outstanding.
 - *5. The investment in interdisciplinary programs or projects should strengthen rather than weaken the core disciplines and departments.

- *6. Faculty leadership for the proposals should be largely in place, though additional leadership may be recruited. A sufficient number of current Vanderbilt faculty should be firmly committed to participating in the project.
- *7. The proposals should require significant new investment rather than being capable of implementation on the basis of existing resources.
- *8. The anticipated gains for the university should be commensurate with the investment.
- *9. The efforts should show promise of generating the funding necessary to sustain the project.
- *10. The proposals should enhance the learning environment and opportunities for undergraduate and graduate students.
- a) Did some of these criteria prove harder to satisfy than others?
- b) Did you assume that successful projects would (or would not) have to meet all the criteria? How did that work?
- c) Were the criteria tacitly modified in the course of the selection process?
- d) How literally was the 'Venture Capital' model applied?
- e) What, if any, criteria were applied that were not explicitly stated in the call for proposals for the AVCF?
- 3. The comment is made in the Historical Overview that 'the first cycle ... was not the most efficient selection process.' Can you comment? What can we learn from this?
- 4. Was the review process, in your view, fair? If the AVCF is renewed in the next funding cycle, what lessons do you think we can learn from the experience so far?
- 5. Were the opportunities available through the AVCF widely disseminated. Was the application process clear?
- 6. To what extent was the SAPCAS/AVCF process weighted towards large-dollar projects, and what effect did that have on the selection process? Were the Humanities sufficiently well served in the rounds of funding that have been completed so far? To what extent might the existing funding of centers reflect biases toward mainstream faculty and/or topics that the university could potentially address?

We warmly invite your considered response. The value of this review will be substantially determined by the feedback we get from participants. A paper copy of this request will follow.

Professor David Wood, Philosophy (Chair) and Professor Leah Marcus, English

for the Senate AVCF Task Force, (Jan 27 2004)

Please respond by e-mail to <u>david.c.wood@vanderbilt.edu</u>, or <u>l.marcus@vanderbilt.edu</u>, or to Andrea Hewitt, Program Coordinator, Faculty Senate, <u>senate@vanderbilt.edu</u>

5.2.2 Letter sent to all faculty through Chancellor Gee requesting feedback on Cross-School Initiatives at Vanderbilt

Your Views on Cross-school Initiatives at Vanderbilt? March 5 2004

The Faculty Senate has established a task force on cross-school initiatives at Vanderbilt. This task force is charged with studying our recent efforts to develop interschool and transinstitutional programs and centers, including the Academic Venture Capital Fund, and making recommendations on how in the future we can best promote fruitful connections and collaborations among faculty in different parts of the University.

The task force would be interested to learn your views on the role of cross-school centers and programs at Vanderbilt.

- * What is your view of the efforts that have been made up to now to develop such initiatives?
- * What steps should Vanderbilt take in the future to build on what we have already accomplished?
- * Do you have any specific suggestions as to how cross-school initiatives can feed into (or benefit from) the University's new commitment to investment in graduate education?

Please address communications to the Task Force chair, Professor David Wood, at david.c.wood@Vanderbilt.Edu. Thank you for your time.

Appendix 5.3

Historical Overview of the University's Strategic Planning Process and the Creation of the Academic Venture Capital Fund³

Initially, the University's strategic planning process was instigated for University Central only. The Medical Center had already conducted a separate planning process a few years earlier. Under the direction of former Provost Tom Burish, the planning process began in the fall semester of 1999 with the appointment of an ad hoc Strategic Academic Planning Group (SAPG). This group met throughout the 1999-2000 academic year. Members included: Tom Burish (Chair), Dean Benbow, Acting Dean Blackburn, professor Bransford, professor Burns, professor Conkin, Pat Kovalcheck, professor LeVan, Vice Chancellor Shoenfeld, Dean Syverud, professor Teal, Dean-Designate Venable, professor Wikswo, Associate Provost Zeppos.

At the start of the process, Burish requested that all deans in University Central devise strategic plans for their schools/colleges. Each dean completed his/her plan near the end of the 2000 spring semester. Beyond the traditional examination of strengths/weaknesses/goals, each dean was asked to give particular attention to interdisciplinary programs that could involve collaborative work with more than one school/college. A leading assumption of this planning process was that through the upcoming capital campaign, the University Central administration could obtain additional funding to support the recommended interdisciplinary programs.

After receiving the various strategic plans, Burish expanded the SAPG to include at least one representative from each school. The degree of faculty involvement in this planning process varied from school to school. To incorporate more faculty input, SAPG also held a daylong retreat in July 2000. Based on the retreat and the strategic plans submitted by the deans, SAPG recognized seven issues critical to University Central –

- 1. diversity & global outreach
- 2. technologies and off-campus education
- 3. graduate & post-graduate education
- 4. faculty development
- 5. student quality
- 6. continuing education and community outreach
- 7. interdisciplinary and interschool initiatives

Sub-committees were established to examine each issue.

The SAPG interdisciplinary and interschool initiatives sub-committee was asked to specifically address ways

"to develop the strengths of Vanderbilt University by bringing together resources in different schools and departments. In the process of choosing and implementing these programs, the faculty will help to

³ Note: This report was prepared in Jan 2003. Since then the third funding cycle has been completed, and the program placed on 'pause' mode.

define the interdisciplinary character of Vanderbilt University. The programs selected to be part of the strategic plan should, therefore, advance each of the schools or departments involved in them; they are intended not to transfer but to multiply resources."

Sub-committee members included professors Burns, Conkin, and LeVan.

In July 2000, the SAPG interdisciplinary and interschool initiatives sub-committee put forth ten criteria for the selection of projects.

- 1. Proposals should help advance Vanderbilt University to the front rank of American universities, especially in the field of the proposal itself.
- 2. They should link the faculty of the different schools rather than being confined to a single school.
- 3. They should involve a broad range of faculty rather than a few individuals.
- 4. They should help to define the interdisciplinary character of the individual schools and the university; they should be distinctive and outstanding.
- 5. The investment in interdisciplinary programs or projects should strengthen rather than weaken the core disciplines and departments.
- 6. Faculty leadership for the proposals should be largely in place, though additional leadership may be recruited. A sufficient number of current Vanderbilt faculty should be firmly committed to participating in the project.
- 7. The proposals should require significant new investment rather than being capable of implementation on the basis of existing resources.
- 8. The anticipated gains for the university should be commensurate with the investment.
- 9. The efforts should show promise of generating the funding necessary to sustain the project.
- 10. The proposals should enhance the learning environment and opportunities for undergraduate and graduate students.

The SAPG sub-committee was also charged with selecting University Central interdisciplinary programs for further consideration by SAPG. Ultimately, the sub-committee considered the following initial proposals, under the following initiatives:

- 1. Continued & expanded trans-institutional initiatives in biology & biomedical science. Biomathematics should be integrated into the planning of these areas.
 - a. Biophysical & Bioengineering Science/Bioengineering & Biotechnology
 - b. Structural Biology
 - c. Developmental Biology & Genetics
 - d. Neuroscience
- 2. Trans-institutional initiatives in teaching & learning, which will center on a learning sciences institute.
 - a. Center for Study of Teaching as Academic Leadership
 - b. Learning Science/Learning Technology
 - c. Life-long Learning Center
- 3. Focused interdisciplinary initiatives
 - a. Trans-institutional Initiative in Materials Science
 - b. Law & Business

- c. Center for Environmental Engineering & Management
- d. Institute for African American Religion & Spirituality
- e. Expansion of the Robert Penn Warren Center
- 4. Areas in which proposals are required
 - a. Information Technology
 - b. Social Sciences & VIPPS

At the time of the July retreat, the University's current chancellor, Chancellor Gee, had yet to take office. However, Chancellor-elect Gee expressed support for both the academic planning process and the launch of a new capital campaign. In providing the initial financial support for the academic planning process, Chancellor Wyatt noted that the planning process would help drive the campaign and its goals. Chancellor-elect Gee also affirmed this commitment.

SAPG concluded a three-year assessment of the institution's academic programs by releasing a strategic academic plan in 2002. During the three-year assessment, Chancellor Gee expanded the focus of the strategic planning process to include the Medical Center, making it a University-wide focus not simply University Central. The report was divided into six sections:

- 1. Overview of the University's "mission, uniqueness and sense of institutional identity for the future,"
- 2. student recruitment and "building a unique educational experience,"
- 3. faculty recruitment and retention,
- 4. establishing "distinctive and distinguished" trans-institutional programs and bridging disciplines and schools,
- 5. transforming graduate education, and
- 6. reorganizing business models.

SAPG membership at the time of the report's release included: Dr. Beauchamp, Dean Benbow, Dr. Blakely, Professor Burns, Dr. Carbone, Professor Cornfield, Dr. Dubois Jr., Professor Ernst, Dr. George Jr., Dr. Granner, Dr. Hogan, Dr. Hawiger, Dr. Lorenzi, Dr. MacDonald, Professor Moran, Linda Norman, Professor Schimpf, Professor Singleton, Dr. Strauss, Professor Tichi, and Dr. Waterman.

When Gee took office in 2000, he noted that the University's organizational and financial structures limited the University from achieving a greater sense of unity and interaction from both academic and research standpoints. His focus centered on the University's isolating ETOB financial model, which discouraged collaboration between schools and disciplines. To modify this financial model, Chancellor Gee established the Integrated Financial Planning Council (IFPC) and charged it to find a mechanism that would allow central administration to increase its support for interdisciplinary research. Vice Chancellor Brisky, Provost Zeppos, Treasurer Spitz, and Vice Chancellor Jacobson serve on the IFPC.

Between the time that Chancellor Gee took office and the release of the strategic academic plan in 2002, the funding for interdisciplinary/interschool projects evolved. Initially, it was determined that funding for new interdisciplinary/interschool projects

would originate from the University's upcoming capital campaign; however, key parties recognized that if the University was to act on these ventures, they could not wait for funding from the campaign. Projects needed to be seeded now. With an initial target of a five-year, \$100 million investment phase, the Board of Trust in February 2001 approved the formation of the Academic Venture Capital Fund (AVCF). Funding for the AVCF would occur through four primary sources – quasi-endowment (unrestricted endowment money), IDS tax, general revenue tax that is levied across the University, and future earnings from the University's technology transfer program. It was expected that additional funding would come from the University's capital campaign.

Since Board approval of the AVCF, the fund has completed two approval cycles and is presently in its third. The first cycle was overseen by former Provost Burish and by all accounts was not the most efficient selection process. This has been attributed to the relative newness of the fund and the changeover of chancellors. The second (and current cycle) have been overseen by Associate Provost Hall.

The Strategic Academic Planning Group plays a critical role in AVCF's proposal evaluation and approval process. However, it is important to note that the SAPG of the AVCF is not the same SAPG of the University's Strategic Planning Process. Though the name has been reconstituted, the group's focus has changed dramatically. Presently, there are two SAPGs tied to the AVCF – one aligned to University Central; the other with the Medical Center. Under the University's Strategic Planning Process, SAPG held a broad charge and sought out new academic investment opportunities for the University. These included new trans-institutional and interdisciplinary programs. Under AVCF, the two SAPGs serve as second level reviewers for proposals that are submitted for evaluation and hopeful approval. They are not charged with seeking out new investment opportunities for the University. University Central SAPG members include: Dean Benbow, and Professors Burns, Cornfield, Ernst, Moran, Schrimpf, Singleton, and Tichi.

AVCF's criteria for the selection of new programs remains relatively similar to that used by the SAPG interdisciplinary and interschool initiatives sub-committee during the first phase of approvals. Where asterisked highlights those similarities.

- 1. The proposed effort is in accord with Chancellor Gee's five basic goals for academic excellence and strategic growth renew commitment to the undergraduate experience, reinvent graduate education, re-integrate professional education with the intellectual life of the University, re-examine and restructure economic models, and renew covenant with the community,
- *2. The proposed effort will help advance Vanderbilt University to the front rank of American universities.
- *3. The proposed effort enhances the learning environment and opportunities for undergraduate, professional, and graduate students, and recognizes the need to recruit and retain an intellectually, racially, and culturally diverse campus community.

- 4. The proposed effort will require significant investment in graduate education, and if successful will improve the national ranking of one or more graduate programs.
- *5. The proposed effort involves a broad range of faculty rather than a few individuals and will foster greater collaboration among the schools.
- 6. The proposed effort will strengthen disciplinary integrity and expand the interdisciplinary range of departments.
- *7. Faculty leadership is already in place.
- *8. The proposed investment will strengthen the core disciplines.
- *9. The proposed effort is bold, requiring significant intellectual and financial investment, with anticipated gains commensurate with the magnitude of the investment.
- *10. The proposed effort shows clear promise for generating the funding needed to sustain itself after the initial period of AVCF support.

Note that two key factors are present in the SAPG sub-committee criteria and the criteria espoused by the AVCF. First, that the projects should be interschool; and second, that the projects should show self-sustaining promise.

Though approved for a five-year, \$100 million projection, the AVCF is expected to continue indefinitely while it looks for funding through the University's internal revenue sources and the upcoming capital campaign. With market changes adversely effecting the initial \$100 million investment, another approval cycle may be placed on hold until new, additional funding can be secured.

In conversations with Associate Provost Hall, the topic of the humanities and its relationship with the AVCF was discussed. Hall noted that if no real opportunity presents itself for the humanities to promote an interschool program, then the University may need to look for a new funding source or modify the current AVCF criteria. He stated that the time to examine this issue would be during the next funding cycle.

1/28/03 DRM

Appendix 5.4

CHARGE TO THE SENATE TASK FORCE ON THE ACADEMIC VENTURE CAPITAL FUND AND CROSS-SCHOOL INITIATIVES October 2003

The Task Force is charged with reviewing recent strategic planning at Vanderbilt for interschool, multischool, and transinstitutional initiatives; studying and assessing the operation of the Academic Venture Capital Fund, which is now in a pause mode; and making recommendations for the planning and funding of future cross-school initiatives. The charge does not include an evaluation of the performance of the individual centers and institutes that have received funding from the AVCF; most have not been in operation long enough to justify an assessment at this point.

Staff support and assistance to the Task Force: The Senate's Program Director, Andrea Hewitt, is available to schedule meetings, take minutes, and do background research.

The Senate chair and executive committee will assist the Task Force in gaining access to relevant documentation and setting up meetings with administrators and committee chairs involved in strategic planning and the operations of the AVCF programs.

Appendix 5: Current List of Funded AVCF Projects

Program in Law and Business Prof. Randall Thomas, Law School

Learning Sciences Institute Prof. Andrew Porter, Peabody College Prof. Virginia Shepherd, VUMC

Vanderbilt Institute for Integrative Biosystems Research and Education Prof. John Wikswo, Dept. of Physics and Astronomy

Vanderbilt Institute for Nanoscale Science and Engineering Prof. Len Feldman, Dept. of Physics and Astronomy

Center for Integrative and Cognitive Neuroscience Prof. Jeffrey Schall, Dept. of Psychology

Research in Proteomics and Functional Biology (Composite of four initiatives)

- 1. Proteomics Laboratory, Prof. Richard Caprioli and Prof. Andrew Link, VUMC
- 2. Gene Profiling Laboratory, Prof. Shawn Levy, VUMC
- 3. The Cryo-Electron-Microscopy Facility, Prof. Phoebe Stewart, VUMC
- 4. Animal and Human Research Imaging Facility, Prof. John Gore, BME and VUMC

Vanderbilt Institute of Chemical Biology

Prof. Larry Marnett, Dept. of Toxicology, VUMC Prof. Ned Porter, Dept. of Chemistry

Functional Genomics of the Zebrafish

Prof. Alfred George, Depts. of Pharmacology and Medicine, VUMC

Center for the Americas

Prof. Beverly Moran, Law School

Center for the Study of Religion and Culture

Prof. Volney Gay, Chair, Department of Religion

Prof. Douglas Knight, Chair, Graduate Dept. of Religion

Vanderbilt Scientific Computing Center (SCC) for Multidisciplinary Research Prof. Paul Sheldon, Dept. of Physics & Astronomy Prof. Ronald Schrimpf, Dept. of Elec. Eng. & Computer Science Prof. Jason Moore, Dept. of Mol. Physiology and Biophysics, VUMC

Environmental Risk and Resources Management [funded for one year]
Dr. Mark Abkowitz, Prof. of Civil & Env. Eng., Prof. of Management of Technology;
Dr Mark Cohen, Senior Associate Dean, Owen Graduate School of Management

Appendix 6: Other useful documents available on the web

The working SAP-CAS website: http://www.vanderbilt.edu/AnS/strategic/oldhome.htm.

The SAP-CAS final report (June 2001): http://www.vanderbilt.edu/AnS/strategic/.

The charge to SAP-CAS from Dean Venable, which points out the problem with earlier College planning: http://www.vanderbilt.edu/AnS/strategic/oldhome.htm