Applied Medical Science Clarification

There has been some confusion about expenses associated with the USM Applied Medical Sciences graduate program because in addition to expenses associated with faculty salaries/ benefits and the revenue from tuition – for which there has been a subsidy of $477, 612 on average over the last five years -- there is also the revenue and expenses associated with funded research.

In the chart provided in the USM proposal for program elimination we did not include the actual grants awarded because the grant award funds the work of the grant and has expenses equal to the award. The size of the grant and the work of the grant are important to the university but for purposes of understanding the finances of the grant – the subsidy to the researchers and the indirect return are the key measures of the financial investment.

The grant itself funds staff and graduate assistant salaries/ benefits, tuition awards, equipment, supplies, maintenance and travel expense. In the chart below, the expense associate with the grant is listed opposite the grant awards to show the 1 to 1 relationship between grant money awarded and expenses, although in fact the expense is taken over the life of the grant rather in the same year the grant is awarded.

In the case of AMS, neither the USM MEIF funds nor the grant itself are paying for faculty salaries or benefits. The MEIF funds and the E&G funded faculty salaries are a subsidy to the research program. Looking at these grants strictly in financial terms the USM MEIF funds are the investment the university is making in the research and the indirect is the return on investment. Of course, we value the work of the research as part of the academic enterprise but in understanding the finances of a grant the key question is whether the grant pays for its expenses or is it subsidized? The answer in this case is that this research is heavily subsidized through faculty
salaries and benefits paid by the university’s E&G budget and USM’s MEIF funds directed toward these programs.

The chart titled Addendum below lists the full revenue and the full cost, which shows this program has cost USM an average of $983,869 each year over the last five years for the E&G funded faculty.

**ADDENDUM**

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<tr>
<th>Five-year Average Annual Revenue</th>
<th>Five-year Average Annual Expense</th>
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<tbody>
<tr>
<td>Tuition $273,376</td>
<td>Salaries and Benefits $750,988</td>
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<tr>
<td>Indirect $262,103</td>
<td>USM MEIF Funds $768,359</td>
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<td>Grant awards $856,095</td>
<td>Expenses associated with grants $856,096</td>
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<td><strong>Total</strong> $1,391,574</td>
<td><strong>Total</strong> $2,375,443</td>
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Cost to USM per year over 5 years $983,869

This chart shows that the AMS faculty have robust research programs but it has come at a high subsidy – (USM MEIF funds of $768,359 for a five year average compared to a return of $262,103 in indirect) – far more than a university funded like USM can afford.

We approached the faculty about the possibility of supporting themselves from their research funds (a common practice in many research programs) but they were not interested. Excluded from this analysis is the overhead cost -- the labs and the utility costs -- associated with these labs. Also, not included has been one non-faculty researcher in the toxicology lab who has had one three year grant awarded in 2012 for an annual average award of $138,320 over the three years, which has resulted in an annual average indirect recovery of $24,813 over the last three years.

There are also grants for epidemiologists in Augusta under CDC (Center for Disease Control) grants which have amounted to an annual average award of $1,023,060 over five years with an annual average indirect recovery of
$150, 800 over that same period. These were excluded because these epidemiologists will continue their work as part of the Muskie School program in public health.

The bulk of the AMS research is in marine toxicology performed in the John Wise lab and work on viruses performed in the Duboise lab – and while the research is important scientific work it has not resulted in applied or commercial application. Both are doing basic research, which is making a valuable scientific contribution but more appropriate to a Research 1 university like University of Maine than to USM, which does not have a mission or budget to support basic scientific research.

There are alternatives for students and the biotechnology industry to the AMS program including the Biology program at USM and the University of Maine’s programs in Molecular and Biomedical Sciences (MBMS) and the Graduate School of Biomedical Science and Engineering (GSBSE) at University of Maine.

The USM master’s program in biology offers coursework and research opportunities that span the sub disciplines of cell and molecular biology, developmental biology, evolutionary genetics, physiology (animal, plant, and microbial), ecology (animal, plant, and microbial), and environmental science. USM also offers a BS with a concentration in biotechnology.

At Orono the Department of MBMS presents opportunities at the undergraduate and master's levels to study in the areas of biochemistry, microbiology and molecular biology and cellular biology. The GSBSE program offers a Ph.D. with concentrations in molecular and cellular biology, neuroscience, biomedical engineering and toxicology and a professional science master's (PSM) in bioinformatics, which is also offered on-line for students at a distance.

Discussions are underway with representatives from the University of Maine in assuring that the biomedical industry will be served, that students
interested in a research intensive program have a graduate program in the state, and that an exploration of the feasibility of continuing some or all of the AMS research programs at U Maine will be undertaken.

These AMS research programs are appropriate to U Maine but not to USM with its applied research focus. USM has spent much of its MEIF funding on this program which has prevented it from directing its limited funds to applied research and workforce development like cyber-security, health informatics and entrepreneurship.

The USM position is clear – if we are to have any chance of closing the $16 million budget gap – we regrettably must close this the AMS program with its few students and high costs.