

FITC ANNUAL ACTIVITIES REPORT

Covers the period July 1, 2007 – June 30, 2008

This report covers activities for the period indicated above, except for Dr. Murat Balaban who joined FITC in January 2008. For him, this document reports activity starting from this date.

1. Personnel Information

| Name | Title | Department/Division |
|--------------------|--|---------------------|
| Murat Balaban | Professor | FITC |
| Charles Crapo | Professor | 50% FITC, 50% MAP |
| Quentin Fong | Associate Professor | 50% FITC, 50% MAP |
| Brian Himelbloom | Associate Professor | FITC |
| Alexandra Oliveira | Associate Professor | FITC |
| Scott Smiley | Associate Professor | FITC |
| Kate Wynne | Professor (Activity report in MAP) | 100% MAP |
| Kay Bodi | Custodial, released Feb 1, 2008. Hired 50% SFOS support July 2008 | |
| Stephen Bodnar | Network and IT Technician, 50% support from SFOS | |
| Darlene Clark | Administrative Assistant | |
| Pat Dooley | Maintenance, released Feb 1, 2008 | |
| Jeanne Miller | Fiscal Technician | |

2. Faculty Workload Summary

| Name | Teaching (%) | Research (%) | Service (%) |
|--------------------|--------------|--------------|-------------|
| Charles Crapo | 16 | 34 | 50 |
| Quentin Fong | 10 | 20 | 70 |
| Brian Himelbloom | 21 | 58 | 21 |
| Alexandra Oliveira | 19 | 71 | 10 |
| Scott Smiley | 12.5% | 75% | 12.5% |
| Kate Wynne | 1% | 49% | 50% |

3. Teaching

Table 3.1: Instructional Activities

| Semester | Course Name, Number & Title | Credits | Contact Hours | Students | Type | Shared |
|-------------|---|---------|---------------|----------|-----------------------|---|
| Spring 2008 | FSN 662: Seafood Composition and Analysis | 3 | 3+0 | 1 | classroom | Himelbloom Oliveira Crapo |
| Spring 2008 | FSN 672: Laboratory Methods in Food Science and Nutrition | 4 | 1+3 | 1 | class & lab | Crapo Himelbloom Oliveira Smiley |
| 2/6-7/08 | Hazard Analysis and Critical Control Point Systems, San Francisco | | 8 | 33 | Extension Instruction | Crapo |
| 2/11-13/08 | Hazard Analysis and Critical Control Point Systems, Anchorage | | 24 | 11 | Extension Instruction | Crapo, Kramer |

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|-------------|--|--|----|----|---|----------------------|
| 2/14-16/08 | Better Process Control School | | 24 | 13 | Extension Instruction | Crapo, Kramer |
| 2/18-29/08 | Alaska Seafood Processors Leadership Institute, Anchorage and Boston | | 80 | 9 | Extension Instruction | Crapo, Haight |
| 3/25-4/4/08 | Alaska Seafood Processors Leadership Institute, Kodiak | | 80 | 9 | Extension Instruction | Crapo, Balaban, Long |
| Fall 07 | Role of Alaska's Seafood Industry in Global Food Marketing System. | | 2 | 8 | Extension Workshop in Nome | Fong |
| Fall 07 | Role of Alaska's Seafood Industry in Global Food Marketing System. | | 2 | 12 | Extension Workshop in Nome | Fong |
| Spring 08 | Using Marketing Tools to Manage Customers for Profit | | 3 | 9 | Extension Workshop (Distance delivery) Nome | Fong |

Table 3.2: Graduate Committee Chair:

A) Supervision of Thesis, Research/Creative Projects; B) Students with No Thesis or Project

| Student Name | Duration | Degree Sought | Student Status |
|---|----------------|-----------------|-----------------------|
| Carey Vorholt (Charles Crapo) | 2004 - present | M.S. | Current |
| Amit Morey (Brian Himelbloom, Alexandra Oliveira) | 2005-2007 | M.S. | Graduated August 2007 |
| Trina Lapis (Alexandra Oliveira) | Fall 2007 | M.S. | Active |
| Thelma Calix (Murat Balaban, UF) | 2007-2008 | M.Sc. | Graduated, UF |
| Max Ohsenius (Murat Balaban, UF) | 2007-2008 | M.Sc. | Graduated, UF |
| Milena Ramirez (Murat Balaban, UF) | 2006-Present | Ph.D., Co-Chair | Active, UF |
| Maria Plaza (Murat Balaban, UF) | 2006-Present | Ph.D., Co-Chair | Active, UF |
| Alberto Azeredo (Murat Balaban, UF) | 2006-Present | Ph.D., Co-Chair | Active, UF |

Table 3.3: Student Advising – Graduate and/or Undergraduate

| Year | Type | Student |
|-----------------------------------|----------------------------------|---------------------------------|
| 2004 -2007 (Charles Crapo) | MS, Committee Member | Huang Jaqui |
| 2005 -2007 (Charles Crapo) | PhD, Committee Member | Fanbin Kong |
| 2005 - present (Brian Himelbloom) | Ph.D. committee member | Tania Spurkland, Marine Biology |
| 2006-08 (Murat Balaban) | Member, Ph.D. committee | Luis Fernando Vargas (UF) |
| 2007-08 (Murat Balaban) | Member, M.Sc. committee | John W. McCombie (UF) |
| 2006-08 (Murat Balaban) | Member, Ph.D. committee | Lihua Huo (UF) |
| 2006-08 (Murat Balaban) | Member, Ph.D. committee | Yavuz Yagiz (UF) |
| 2006-08 (Murat Balaban) | Member, M.Sc. committee | Rob Bent (UF) |
| 2007-08 (Murat Balaban) | Visiting Ph.D. student | Giovanna Ferrentino (UF) |
| 2008 (Murat Balaban) | Visiting M.Sc. student | Lale Gurer |
| 2008-09 (Murat Balaban) | Visiting M.Sc. student | Alper Erdem |
| 07-08 (Alexandra Oliveira) | Member of grad. committee | Celeste Leroux |
| Spring 08 (Alexandra Oliveira) | Assigned undergraduate student | Jacob Keplinger –Kodiak College |
| Spring 08 (Alexandra Oliveira) | Unassigned undergraduate advisee | Carolyn Barnes – UAA |
| Summer 07 (Alexandra Oliveira) | Unassigned undergraduate advisee | Rhiannon Ellingson - UAF |

4. Research, Scholarly and other Creative Activities

| Table 4.1: Publications | | | |
|--|--|-----------------------|---------------------------------------|
| List only those publications that appeared in print during the time covered in this review. | | | |
| Year | Citation | Type | Review |
| 2007 | Bower CK, Malemute CL and Oliveira ACM. 2007. Preservation methods for retaining n-3 PUFAs in salmon products. <i>J. Aquat. Food Prod. Tech.</i> 16(4) 45-54. | Peer reviewed article | Journal editorial board and reviewers |
| 2007 | Bechtel PJ, Chantarachoti J, Oliveira ACM, Sathivel S. 2007. Characterization of protein fractions from immature Alaska walleye pollock (<i>Theragra chalcogramma</i>) roe. <i>J. Food Sci.</i> 72(5) S338-S343. | Peer reviewed article | Journal editorial board and reviewers |
| 2007 | Finstad G, Wiklund E, Long K, Rinker PJ, Oliveira ACM, Bechtel PJ. 2007. Feeding soy or fish meal to Alaskan reindeer (<i>Rangifer tarandus tarandus</i>) – effects on animal performance and meat quality. <i>Rengifer</i> 27(1):59-75 | Peer reviewed article | Journal editorial board and reviewers |
| 2007 | Richards M, Nelson NM, Kristinsson HG, Mony SSJ, Petty HT and Oliveira ACM. Effects of heme protein structure and lipid substrate composition on hemoglobin-mediated lipid oxidation. <i>J. Agric. Food Chem.</i> 55(9):3643-3654. | Peer reviewed article | Journal editorial board and reviewers |
| 2007 | Chantarachoti J, Oliveira ACM, Himelbloom BH, Crapo CA and McLachlan DG. Alaska pink salmon (<i>Oncorhynchus gorbuscha</i>) spoilage and ethanol incidence in the canned product. <i>J. Agric. Food Chem.</i> 55(7): 2517-2525. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Himelbloom, B.H <i>Staphylococcus aureus</i> concerns in smoked fish. International Smoked Seafood Conference Proceedings, p. 9-13. March 5-7, 2007. Alaska Sea Grant College Program, AK-SG-08-02, Fairbanks, AK. | Proceedings | Scientific board |
| 2008 | Himelbloom, B.H., Crapo, C., Shetty, T.S. and Vorholt, C. Pellicle formation and inactivation of <i>Listeria</i> and <i>Staphylococcus</i> species in hot-smoking of salmon. International Smoked Seafood Conference Proceedings, p. 27-33. March 5-7, 2007. Alaska Sea Grant College Program, AK-SG-08-02, Fairbanks, AK. | Proceedings | Scientific board |
| 2008 | Balaban, M.O., Damar, S., Odabasi, A.Z., Oliveira, ACM. Quality Evaluation of Seafoods. In : Computer Vision Technology for Food Quality Evaluation", Da-Wen Sun, Editor. Elsevier. p:189-209. | Book chapter | Editor |
| 2008 | Korel, F., and Balaban, M.O. Electronic nose technology in food analysis. Chapter 17. Otles, Ed. "Handbook of Food Analysis Instruments". CRC Press, Atlanta, GA. ISBN:978-1-4200-4566-6 p:365-378. | Book chapter | Editor |
| 2008 | Korel, F. and Balaban, M.O. Chemical Composition and Health Aspects of Chestnut (<i>Castanea</i> spp.). In: Tree Nuts: Composition, Phytochemicals, and Health Effects. C. Alasalvar, F. Shahidi (Eds.). Chapter 11. Taylor & Francis ISBN: 13:798-0-8493-3735-2. p:171-184. | Book chapter | Editor |
| 2008 | Erdogdu, F. and Balaban, M. O. 2008. Complex method optimization. Chapter 15. Optimization in Food Engineering. Ferruh Erdogdu, Ed. CRC Press, Boca Raton, FL. p:294-304. ISBN: 13:978-1-4200-6141-3 | Book chapter | Editor |
| 2008 | Mantilla, D., Kristinsson, H.G., Balaban, M.O., Otwell, W.S., Chapman, F.A., Raghavan, S. 2008. Carbon monoxide treatments to impart and retain muscle color in tilapia fillets. <i>J Food Sci</i> 73(5): C390-399. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Ferrentino, G., Ferrari, G., Poletto, M., Balaban, MO. 2008. Microbial Inactivation Kinetics during High-Pressure Carbon Dioxide Treatment: Nonlinear Model for the Combined Effect of Temperature | Peer reviewed article | Journal editor and reviewers |

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|------|--|-----------------------|---------------------------------------|
| | and Pressure in Apple Juice. J Food Sci 73(8): E389 - E395 | | |
| 2008 | Balaban, M.O. 2008. Quantifying non-homogeneous colors in agricultural materials. Part I: Method development. J. Food Sci 73(9): S431-S437 | Peer reviewed article | Journal editor and reviewers |
| 2008 | Balaban, M.O., Aparicio, J., Zotarelli, M., Sims, C. 2008. Quantifying Non-Homogeneous Colors in Agricultural Materials. Part II: Comparison of Machine Vision and Sensory Panel Evaluations. J. Food Sci 73(9): S438-S442 | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Calix, F. T., Ferrentino, G., Balaban, M.O. 2008. Measurement of high pressure CO ₂ solubility in orange juice, apple juice and model liquid foods J Food Sci 73(9): E439-E445 | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Pilavtepe, M., Balaban, M.O. 2008. Machine Vision Based Quantification of Bacterial Volume Change with High Hydrostatic Pressure. J Food Sci 73(9): M423-M429 | Peer reviewed article | Journal editor and reviewers |
| 2008 | Mantilla, D., Kristinsson, H., Balaban, M.O., Otwell, W.S., Chapman, F.A., Raghavan, S. 2008. Color stability of frozen whole tilapia exposed to pre-mortem treatment with carbon monoxide. Journal of the Science of Food and Agriculture. 88 (8):1394 - 1399 | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | R. RaLonde, A. Oliviera, B. Himelbloom, C. Crapo. C. Vorholt, & Q. S.W. Fong. 2008. Oyster Farming in Alaska. World Aquaculture 39(2): 33-38. | Article | Editor |
| 2008 | Joaquin HJF, Tolasa S, Oliveira ACM, Lee CM, and Lee KH. 2008. Effect of milk protein concentrate on lipid oxidation and formation of fishy volatiles in herring mince (<i>Clupea harengus</i>) during frozen storage. J. Agric. Food Chem. 56, 166-172. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Plante S, Smiley S, Oliveira ACM, Stone D, Hardy R, and Bechtel P. 2008. Testes meals made from Alaska's seafood processing byproducts. J. Aquat. Food Prod. Tech. 17(2): 195-211. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Reppond K, Rugolo L, Oliveira ACM. Changes in biochemical composition during development of snow crab <i>Chionocetes opilio</i> , embryos. J. Crustacean Biology 28(3): 519-527. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | Kong F, Oliveira ACM, Tang J, Rasco B, Crapo C. Effect of salt addition on the quality changes of salmon fillet during thermal processing. Food Chem. 106(3): 957-966. | Peer reviewed article | Journal editorial board and reviewers |
| 2008 | RaLonde R, Oliveira ACM, Himelbloom B, Crapo C, Vorholt C, Fong Q. 2008. Oyster (<i>Crassostrea gigas</i>) mariculture in Alaska. World Aquaculture. June issue, p. 33-37 and 71. | outreach publication | magazine editor |
| 2008 | Oliveira ACM, Crapo CA, Himelbloom BH, Morey A and Ambardekar A. 2008. Development and characterization of vacuum packaged wild pink salmon (<i>Oncorhynchus gorbuscha</i>) jerkies using marinades. In: International Smoked Seafood Conference Proceedings. Kramer D and Brown L (Editors). Alaska Sea Grant College, Anchorage, AK. p. 67-74. | Proceedings | Scientific board |
| 2008 | Oliveira ACM, Stone D, Plante S, Smiley S, Bechtel PJ and Hardy R. 2008. Fish oils from Alaskan seafood processing by-products: an unexploited sustainable resource for aquaculture. World Aquaculture. June issue, p. 50-51 and 69. | Outreach publication | Journal editor |
| 2008 | Oliveira ACM. Utilization of fishery byproducts in Alaska. Conference Proceedings III SIMCOPE. Simposio de Controle do Pescado. CRP Neiva (Editor). Instituto de Pesca. Governo do Estado de Sao Paulo. Sao Vicente, SP, Brazil. p. 1-10. ISSN 1983-1854. | Proceedings | Scientific board |

| Table 4.3: Professional, Creative Activities | | |
|--|---|--------------------------|
| List activities such as performance, exhibits, presentations, audio/video recordings, computer programs, musical compositions, poems, concert performances, etc. | | |
| Date | Nature of Activity/Title | Participating Individual |
| Filed February 25, 2008 | “Quality enhancement of coffee beans by acid and enzyme treatment”. U.S. Patent application serial no: 61/067,141 | Murat Balaban |
| 2008 | Software development: machine vision software to evaluate bruising and gapping | Murat Balaban |

| Table 4.4: Sponsored Projects/Commissions | | | | |
|--|-----------------------------------|---|-----------------|--------------|
| Date & Duration | Names | Project Title | Grant Sponsor | Grant Amount |
| 10/1/07 2 years | Himelbloom Bower, Zhang | Marine compost accelerated for coastal Alaska climates | USDA ARS | \$26,452 |
| 10/1/06 3 years | Himelbloom Crapo | Efficacy of pulsed ultraviolet light for inactivating <i>Listeria</i> on smoked salmon | USDA- CSREES | \$109,181 |
| 10/1/06 3 years | Crapo Himelbloom | Developing more value for second grade roe and caviar | USDA- CSREES | \$91,263 |
| 6/1/06 2.5 years | Crapo Himelbloom | Evaluating slurry ice systems for Alaska salmon fisheries | USDA- CSREES | \$152,479 |
| 2007-2009/ 24mo. | Crapo, Oliveira | Quantifying Gapping and Bruising in Salmon Fillets as Quality Indices | USDA/ CSREES | 74,176 |
| 6/1/06 2.5 years | Crapo, Oliveira Himelbloom | Developing intermediate moisture products from pale meated salmon | USDA- CSREES | \$162,565 |
| 2007-2009/ 24mo. | Crapo, Fong, Oliveira | Freeze Dried Salmon: Developing Products for the Y Generation | USDA/ CSREES | 85,779 |
| 2007-2009/ 24mo. | Crapo | Causes and Prevention of Bruising in Salmon | USDA/ CSREES | 88,889 |
| 2007-2009/ 24mo. | Crapo, Oliveira. | Improving the Sensory and Nutritional Attributes of Canned and Pouched Alaska Pink Salmon with Salmon Oil | USDA/ CSREES | 130,495 |
| 1/1/06 2.5 years | Oliveira Himelbloom Crapo | Identification of ethanol-producing bacteria as indicators of spoilage in Alaska pink salmon | USDA- CSREES | \$87,429 |
| 9/1/05 3 years | Himelbloom Crapo | Isolation and characterization of antilisterial <i>Carnobacterium</i> species from commercially-processed fish | USDA- CSREES | \$136,983 |
| 9/1/05 3 years | Himelbloom Oliveira RaLonde | Monitoring and identification of <i>Vibrio parahaemolyticus</i> | USDA- CSREES | \$168,450 |
| 9/1/05 3 years | Oliveira Himelbloom Crapo | Chemical identification and electronic nose analysis of late odor in canned pink salmon | USDA- CSREES | \$137,524 |
| 2005-2008/ 36 mo | Crapo, Fong, RaLonde | Economic Feasibility of Clam Farms in Alaska | USDA/ CSREES | 83,053 |
| 2005-2008/ 36mo | Crapo, Fong, Rice, Cullenberg | Synopsis of the Live Seafood Market in North America | USDA/ CSREES | 77,780 |
| 2005-2007/ 24mo | Crapo, Sathivel | Developing Fish Powder | Sea Grant | 87.200 |
| 1/1/05 3 years | Himelbloom Crapo | <i>Staphylococcus aureus</i> and <i>Listeria monocytogenes</i> survivability during pellicle formation in hot-smoked salmon | USDA- CSREES | \$134,265 |

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|-------------------|-------------------------------|--|----------------------------|---|
| 1/1/05 3 years | Himelbloom Oliveira | Rapid identification of fish spoilage bacteria through cellular fatty acid profiles and carbon substrate utilization patterns | USDA- CSREES + ASGCP | \$182,118 +\$13,870 (graduate tuition) |
| 2005-2009 | Haws, Ellis, Fong | Outreach and Extension in Aquaculture, Agriculture, and Agro-forestry for Socially Disadvantaged Farmers in Micronesia and Hawaii | USDA | 280,000 |
| 2007-2008 | Smiley, Oliveira, Sathivel | Alaska byproduct utilization (Phase II) | USDA | \$250,000. |
| 2008-2010 | RaLonde, Oliveira | Post-harvest quality of selected molluscan broodstock oysters raised in Kachemak Bay, Alaska, in comparison with other northwest US locations. | Alaska Sea Grant | \$200,000 |
| 2008-09 | Oliveira | Purification of pollock oil using short-path distillation | PCCRC | \$84,266. |

| Table 4.5: Other Scholarly Work | |
|---|----------------|
| Activity | Faculty |
| In collaboration with a number of colleagues (http://www.guammarinelab.com/peetcukes/) Dr. Smiley has been working on the systematics of holothurians, and specifically the development of two bibliographies. One is a bibliography of Holothurian taxonomy, systematics and paleontology, contains roughly 2000 references and runs to about 175 pages http://www.guammarinelab.com/peetcukes/systematicslit.html . The other covers Holothurian biology other than taxonomy, systematics and paleontology, runs to about 220 pages and contains some 2500 references http://www.guammarinelab.com/peetcukes/biologylit.html . An annotated catalog, written in collaboration with Dr. David Pawson at the Smithsonian Institution, covering Holothurian species and their higher taxa is also located on this web site http://www.guammarinelab.com/peetcukes/taxonorderdiagnoses.html . Dr. Smiley is active in this group in assisting in issues of taxonomy and systematics, advising graduate students and promoting this effort to better understand this group of organisms. | Smiley |
| “Developing Fish Drying Processes for Small Pollock” 2007-8. Alaska’s Nature Seafood, Soldotna, AK. | Crapo |
| “Understanding the Properties of Salmon Hydrolysates” 2007 -8. Alaska Protein Recovery, Juneau, AK | Crapo |
| “Development of Skinless Boneless Salmon in Retort Pouches” 2008. Wild Foods, Kodiak | Crapo |
| “Establishing Process Adequacy for Seafood Cannery and Smokers” 2008. Coal Point Trading Co., Homer, Coastal Seafoods, Petersburg, T&M Seafoods, Seward, Alaska Seafood Company, Juneau, Talkeetna Smokers, Talkeetna, and Copper River Seafoods, Cordova. | Crapo |

| Date | Participant | Conference Name | Presentation/Activity ¹ | Title of Presentation |
|-----------------------|-------------|--|------------------------------------|---|
| 2008 | Balaban | Pacific Fisheries Technologists Meeting. San Francisco, CA | poster | Effects of CO Treatment on the Color and Quality of Atlantic Salmon |
| 2008 | Balaban | Pacific Fisheries Technologists Meeting. San Francisco, CA | poster | Effects of CO Treatment on the Color of Frozen Tilapia and Catfish |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Effect of internal and external stresses on drying rate and color change of grapes |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Design and testing of an apparatus to measure carbon dioxide solubility in liquid foods |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Experimental measurement of carbon dioxide solubility in orange and apple juice |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Survival of <i>Vibrio vulnificus</i> during freezing |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Correlation between amount of astaxanthin and a* value during different irradiation doses in Atlantic salmon muscle |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Effects of CO treatment on the color of frozen tilapia and catfish. |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Effects of CO treatment on the color and quality of Atlantic salmon |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Effect of cold and hot extraction on the physicochemical properties of a jamaica extract. |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Clarification of guava juice with bioguavase enzyme |

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|-----------------------|--|---|------------|--|
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Acceptability of irradiation treatment on fresh and frozen Atlantic salmon fillets |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | poster | Effects of particle size and storage conditions in color degradation of paprika. |
| June 28- July 1, 2008 | Balaban | IFT Annual Meeting, New Orleans, LA | oral | Quality of beverages pasteurized with dense phase CO ₂ processing systems |
| May 18-21, 2008 | Balaban | 1st Int. Congress of Seafood Techn. Izmir | oral | Application of CO to aquatic foods: promise and concerns |
| November 4-9, 2008 | Balaban | 1st European Food Congress. Ljubliana, Slovenia | oral | Microbial inactivation and shelf life of apple juice treated with high pressure carbon dioxide |
| 2008 | Oliveira, Himelbloom, Chantarachoti, and Crapo | Pacific Fisheries Technologists (PFT), 60th Annual Meeting, San Francisco, CA | PowerPoint | Intestinal tract as the origin for ethanol production during pink salmon spoilage. |

| | | | | |
|-------------------|--|---|--|---|
| 2007 | Morey, A., Himelbloom, B. and Oliveira | IFT 68th Annual Meeting, July 28-31, Chicago, IL | PowerPoint | Evaluating the accuracy and reproducibility of an automated identification system for bacteria isolated from seafood. |
| 2007 | Chantarachoti, Oliveira, Himelbloom, Crapo, | IFT 68th Annual Meeting, July 28-31, Chicago, IL | Poster | Ethanol incidence and aerobic bacteria in pink salmon (<i>Oncorhynchus gorbuscha</i>) during storage at 10°C |
| 9/25/07 | Himelbloom | AAAS - Arctic Division | PowerPoint | Threats to food safety in Alaska |
| 1/20 – 1/23/08 | Himelbloom | Alaska Marine Science Symposium | poster | The unseen microcosm: potential for Alaska marine microbial pharmacology |
| 3/22/08 | Himelbloom | ComFish | PowerPoint | Pharmaceuticals from the sea |
| Sept 07 | Smiley, Oliveira, Subramaniam | 37th WEFTA Annual Meeting Lisbon, Portugal | Oral presentation | Purification of commercial Alaska pink salmon oil and pollock oil using chitosan. |
| Sept 07 | Oliveira, Crapo, Himelbloom | 37th WEFTA Annual Meeting Lisbon, Portugal | Oral presentation | Characterization of volatile compounds in canned Alaska pink salmon produced from fish at various degrees of spoilage. |
| Feb 08 | Oliveira | AquaAmerica World Aquaculture Society Meeting. Orlando (FL) | Oral presentation | Fish heads from selected cold water marine fish as unique feed ingredients |
| Mar 08 | Smiley, Oliveira, Subramaniam | 59 th Pacific Fisheries Technologists Meeting. San Francisco, CA | Poster presentation | Purification of commercial Alaska pink salmon oils and Pollock oils using chitosan |
| Mar 08 | Smiley, Oliveira | 59 th Pacific Fisheries Technologists Meeting. San Francisco, CA | Oral presentation | Chemical characterization of heads and livers of yelloweye rockfish harvested in Alaska. |
| Mar 08 | Smiley, Oliveira | 59 th Pacific Fisheries Technologists Meeting. San Francisco, CA | Oral presentation | Composition of hydrolysate meals made from Alaska byproducts and comparison with traditional Alaskan fishmeals. |
| Mar 08 | Smiley, Oliveira | 59 th Pacific Fisheries Technologists Meeting. San Francisco, CA | Oral presentation | Increasing utilization of viscera from fish processing. |
| Mar 08 | Oliveira, Crapo, Balaban | 59 th Pacific Fisheries Technologists Meeting. San Francisco, CA | Poster presentation | Grading of pink salmon skin watermarking using a machine vision system. |
| Mar 08 | Oliveira | COMFISH. Kodiak, AK. | Guest speaker | Nutritional benefit of fish and the omega-3 fatty acids |
| Apr 08 | Oliveira | Alaska Seafood Processing Leadership Institute Workshop. Kodiak, AK. | Guest speaker | Nutritional benefit of fish and the omega-3 fatty acids |
| May 08 | Oliveira, Bechtel, Smiley | 99 th American Oil Chemistry Society Annual Meeting, Seattle, WA. | Guest speaker Processing and Agricultural Microscopy Divisions | Diversity in fish oils and fish meals derived from Alaska seafood by-products |
| June 08 | Oliveira | III SIMCOPE Simposio de Controle do Pescado. (Sao Vicente, SP – Brazil) | Guest speaker, and mediator | Perspectivas para o aproveitamento dos sub-produtos da industrialização do pescado no Alaska |
| June 08 | Bechtel and Oliveira | IFT Annual Meeting. New Orleans, LA. | Poster presentation | Characterization of Alaska Pollock bone meals and tanner crab byproduct meal. |

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|---------|---------------------------------------|--|---------------------------|---|
| June 08 | Demir, Bechtel, Oliveira and Smiley | Institute of Food Technologist Annual Meeting. New Orleans, LA. | Poster presentation | Chemical characterization of protein powders produced from heads of five Pacific salmon species (<i>Oncorhynchus</i> spp.) commercially harvested in Alaska. |
| June 08 | Bower, Hietala and Oliveira | IFT Annual Meeting. New Orleans, LA. | Oral presentation | Stabilizing polyunsaturated fatty acids- rich oils in salmon heads. |
| June 08 | Oliveira, Bechtel Smiley and Demir | IFT Annual Meeting. New Orleans, LA. | Poster presentation | Chemical composition of giant red sea cucumbers (<i>Parastichopus californicus</i>) commercially harvested in Alaska. |
| June 08 | Oliveira Bechtel Smiley and Plante | IFT Annual Meeting. New Orleans, LA | Poster presentation | Fish oils from Alaskan seafood processing: An unexploited resource of omega-3 rich nutraceuticals. |
| Sept 07 | Oliveira ACM, Bechtel PJ and Morey A. | Portuguese Department of Tech. Innovation and Upgrading of Fish products (INRB/IPIMAR). Book of Abstracts p.115. | Oral presentation | Chemical characterization of major byproducts from yelloweye rockfish (<i>Sebastes ruberrimus</i>) caught in Alaska waters. |
| 2007 | Smiley | AAAS Arctic Div. | Invited Oral Presentation | Global Change and Fisheries in Alaska |
| 2007 | Smiley | Presentation: Dept Fisheries University Istanbul | Invited Oral Presentation | Characteristics of Novel Fish Meals made from the Alaska Seafood Processing Waste Stream |
| 2008 | Smiley | Presentation Pacific Fisheries Technologists | Oral Presentation | Commercial Hydrolysates Made from the Byproducts of Alaskan Seafood |
| 2007 | Smiley | AAAS Arctic Division | Oral Presentation | Climate Change and Commercial Fisheries in Alaska |

5. Public, University, and Professional Service

Table 5.1: Public Service

| Activity | Duration | Name |
|---|--|-------|
| Dept of Environmental Conservation Alaska Seafood Processors Advisory Council. University member of council that meets to discuss industry - state seafood inspection and regulatory issues. | Mar 2008 | Crapo |
| Dept of Environmental Conservation - Seafood Inspection Division. Provide technical assistance for solving conflicts and problems with small Alaska processors regarding product quality and safety | Aug and Dec 07, Jan/Feb 2008, Mar/Apr 2008 | Crapo |
| Dept of Commerce and Economic Development - Alaska Seafood Marketing Institute. Review of seafood quality publications, participation in quality committee activities. Provide technical information for ASMI staff and clients | Jul 2007 -Jun 2008 | Crapo |
| U.S. Food and Drug Administration - Alaska Region. Provide technical assistance to field investigators | Dec 2007 May 2008 | Crapo |
| Assisted Charlie Loong, an independent seafood buyer from China in sourcing underutilized fishery resource for the China market. Kodiak, Alaska June to September. | 2008. 2 working days | Fong |
| Transfer findings from the project "Economic feasibility of small-scale oyster farms in Alaska" to the defendants, City of Homer, City Clerk Jo Johnson and Katchemak Bay Shellfish Mariculture Association in the case Frank Grisold vs. the above. Homer, Alaska. | 2008 July | Fong |
| Assist Casey Camphell on patent issues, sourcing of raw materials, and funding sources for fishery related product development. Juneau, Alaska. | 2008 July | Fong |

Period July 1, 2007 - June 30, 2008

| | | |
|--|-------------------------------|------------|
| Assistance on pricing strategies with Jenetta Cratty. Kodiak, Alaska. | 2008 July | Fong |
| Brief Jason Bang on live fish markets and regulations. Kodiak, Alaska | 2008 July | Fong |
| Assessing the effects of credit crunch on selected Alaska coastal communities: Kodiak and Petersburg, Alaska | 2008 May | Fong |
| Transfer U.S. West Coast Sea Cucumber wholesale prices in Hong Kong to Greg Fisk. Hong Kong | 2008 May | Fong |
| Assisted Yanser Ltd. in sourcing Alaska smoked salmon to Hong Kong. Hong Kong | 2008 February | Fong |
| Assisted Kenneth Lau, Proprietor, Asia Seafood Ltd. in sourcing Alaskan sea cucumbers. Hong Kong | 2008 January | Fong |
| Assisted Northern Economics to access information on the utilization of Alaskan ground fish in the People's Republic of China | 2007 September | Fong |
| Conduct one-on-one consultations with Alaska Spirits LLC to revise their marketing and business strategy | 2007 August September | Fong |
| Assisted Southeast Alaska Dive Fisheries Association on geoduck enhancement project | 2007 August | Fong |
| Assisted K.I.T. Inc. in shellfish farm planning | 2007 August | Fong |
| Researched and transferred pearl quality, markets, and pearl farm economics data to Mr. Ilisoni Vuidreketi, Trade Commissioner, Fiji Trade Commission. Los Angeles | 2007 August | Fong |
| Assisted Heather Walker, Independent Market Researcher, on accessing market data, who's who in salmon market, and transferring salmon resource data. Kodiak Alaska | 2007 July | Fong |
| Visit by Kodiak entrepreneurs, discussed the possibility of experimental pet treats | 6/6/2008 | Himelbloom |
| Visit by Kodiak seafood processor, , discussed the processor's interest in live fish transportation for exporting and the technology required | 6/4/2008 | Himelbloom |
| Phone call to Southeastern Alaska smoked seafood processor, discussed the company's need for water-phase salt analysis of its product line | 6/3/2008 | Himelbloom |
| Fax to Southcentral Alaska smoked seafood processor, sent information about chlorination for inactivating possible food pathogens on raw fish before preparing salmon jerky | 6/2/2008 | Himelbloom |
| Phone call to central Alaska smoked seafood processor, described miniature temperature data recording devices for use in smoked fish operations | 6/2/2008 | Himelbloom |
| Visit by NPFMC, Scientific and Statistical Committee members, , provided an overview of FITC and a tour of the laboratories and pilot plant for the ten-member group | 6/2/2008 | Himelbloom |
| Phone call to central Alaska smoked seafood processor, discussed the types of microbial tests necessary for ensuring seafood safety to ADEC | 5/21/2008 | Himelbloom |
| Phone call to Alaska Public Radio Network, answered reporter's questions about omega-3 fatty acids and provided contacts for her to call | 5/20/2008 | Himelbloom |
| Meeting with two Kodiak High School teachers, discussed plans for 2009 food science class at the high school | 5/5/2008 | Himelbloom |
| Visit by UA Board of Regents member and Kodiak College faculty, overview of FITC and a tour of the laboratories and pilot plant | 5/2/2008 | Himelbloom |
| Meetings with two Kodiak High School classes about food science, visited two classes, provided short talk and discussion about food science, provided tours of FITC, demonstrated the making of "gummy worms" and assisted with sensory tasting of commercial products | 4/11, 4/18, 5/5 – 5/9/2008 | Himelbloom |
| Internet Science and Technology Fair (ISTF) judge, evaluated the online projects developed by six elementary, middle school and high schools. The ISTF was conducted through the University of Central Florida's College of Engineering and Computer Science. | 4/28/2008 | Himelbloom |

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| Visit to Kodiak seafood processor, provided information on <i>Listeria monocytogenes</i> and food safety of ready-to-eat roe and caviar products | 4/11/2008 | Himelbloom |
| Kodiak Middle School science fair judge, judged about twenty science exhibits (posters) | 3/28/2008 | Himelbloom |
| Phone call and e-mails from liquid smoke company, discussed potential for using the company's products as substitutes for wood smoke in smoked salmon processing as a research proposal | 4/3/2008, 3/6-7/2008 | Himelbloom |
| E-mail to Kodiak College and high school teachers, forwarded information about an upcoming pre-med videoconference from UAA for interested students | 3/7/2008 | Himelbloom |
| Phone call Pennsylvania State University faculty member, recommended a university expert for writing a book chapter on the use of chlorinated compounds as sanitizers in fish and seafood processing | 2/28/2008 | Himelbloom |
| St. Mary's School science fair, provided agar plates for a student's science fair project | 2/8/2008 | Himelbloom |
| E-mail from IFT Food Science Ambassador program, , replied to request for volunteers to judge online science fair | 11/21/2007 | Himelbloom |
| Visit by two UAF vice-chancellors and provost, discussed research overview of FITC and provided a tour of the laboratories and pilot plant | 11/1/2007 | Himelbloom |
| Guest lecturer in "Earth as Ecosystem: Introduction to Environmental Science" (ENVI A202) evening class teleconference | 10/29/2007 | Himelbloom |
| Visit to K-1 student classroom, instructed about twenty K-1 st graders and their teacher at North Star Elementary School in demonstrating the capabilities of a dissecting microscope | 10/29/2007 | Himelbloom |
| Phone call from Cooperative Extension Service agent in Juneau, answered her questions regarding partially frozen herring eggs and blanching time for preventing potential food safety problem | 10/16/2007 | Himelbloom |
| Interviewed by junior high school student, discussed seafood science and various aspects of marine science as a potential career | 10/9/2007 | Himelbloom |
| E-mail to Pacific Northwest seafood processor, sent web-linked information regarding NMFS S-K for possible funding of a research project with FITC | 9/4/2007 | Himelbloom |
| E-mail to Alaska food industry consultant, sent information regarding the Marine Stewardship Council and Alaska fish sustainability | 8/17/2007 | Himelbloom |
| E-mail to Kodiak seafood processor, sent additional information specifically addressing heat-inactivation of the food pathogen <i>Listeria monocytogenes</i> | 8/17/2007 | Himelbloom |
| E-mail to Kodiak seafood processor, sent web-linked information regarding chicken egg pasteurization for use in Alaska salmon product | 8/16/2007 | Himelbloom |
| E-mail to manufacturer of pulsed UV system, replied to his question about using ozone for disinfecting foods | 8/10/2007 | Himelbloom |
| E-mail to Alaska food industry consultant, responded to her inquiry and sent web links for companies located outside of Alaska that can conduct various types of food analyses | 8/8/2007 | Himelbloom |
| E-mail to NOAA-NMFS biologist at Kodiak Fisheries Research Center, sent web links to articles regarding possible causes for king crab larvae mortalities | 8/2/2007 | Himelbloom |
| Phone call from NOAA-NMFS biologist at Kodiak Fisheries Research Center, answered her questions regarding water quality and bacterial contamination as possible factors in blue and red king crab larvae survival | 8/2/2007 | Himelbloom |
| E-mail to Pacific Northwest seafood processor, sent web-linked information regarding the PCCRC for possible funding of pollock research with FITC | 8/1/2007 | Himelbloom |

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| E-mail to Pacific Northwest seafood processor, sent published information concerning salmon roe quality and safety | 7/28/2007 | Himelbloom |
| Visit from Pacific Northwest seafood processor, met with corporate quality control manager to discuss research and education ideas leading to future collaboration and toured FITC | 7/26/2007 | Himelbloom |
| Phone call from Alaska seafood processor, e-mailed PowerPoint presentations about <i>Staphylococcus aureus</i> and pellicle development in smoked fish products based on talks delivered at last spring's international conference | 7/20/2007 | Himelbloom |
| Determined nutritional content and water activity of commercial salmon jerky products (SOLSTIX) for Alaska Spirit LLC (Kodiak, AK). Assisting Alaska Spirit LLC, a Kodiak based small salmon processor, with diverse chemical analysis of their product line SOLSTIX | 2007-2008 | Oliveira |
| Conducted determination of composition and fatty acids profile in muscle of coho and chum salmon caught in the Yukon River for the Yukon River Drainage Fisheries Association (Yukon, AK) | 2008 | Oliveira |
| Conducted nutritional analysis of salmon roe from Yukon River to salmon processor at upper Tanana River (Nenana - District Y-6, AK) | 2008 | Oliveira |
| Provided salt content and water activity analysis to Northern Light Smokeries (Petersburg, AK) | 2008 | Oliveira |
| Conducted compositional analysis of commercial pollock byproducts and production intermediates for whitefish meal for American Seafoods Group (Dutch Harbor, AK) | 2008 | Oliveira |
| Conducted a variety of chemical analysis for human grade pink salmon oils produced in summer of 07 by Alaska Protein Recovery (Ketchikan, AK) | 2008 | Oliveira |
| Provided information to the City of Cordova (Prince William Sounds, AK) regarding lipid content of fish offal, in particular for sockeye salmon byproducts (Seattle, WA). | 2008 | Oliveira |
| Consultation | Roughly 5 - 10% of time | Smiley |

| Table 5.2: University Service | | |
|---|------------------------|------------|
| Activity | Duration | Faculty |
| FITC and MAP Peer Review Committees | 2005-present | Crapo |
| Faculty Mentoring - Alex. Oliveira | 2/02 - present | Crapo |
| Faculty Mentoring - Torie Baker | 8/04 - present | Crapo |
| Building proctor: Coordinate day to day operations at FITC with the dean's office | April to December 2007 | Fong |
| Seafood Science Unit Peer Review Committee, chair, conducted the coordination of the committee's activity regarding two faculty files for tenure only and promotion/tenure | 8/30/2007 – 1/18/2008 | Himelbloom |
| Academic Head for Food Science and Nutrition Graduate Program, dealt with faculty and student issues regarding the program and responds, when necessary, to inquiries from the UAF Graduate School and SFOS | 7/1/2007 to present | Himelbloom |
| FITC Safety Committee member, dealt with biosafety issues in the microbiology laboratory | 7/1/2007 to present | Himelbloom |
| Program Review Committee - UAF/ Petroleum Engineering | 2008 | Oliveira |
| Program Review Committee - UAF/ GPMSL (Marine Sci. & Limnol.) | 2008 | Oliveira |
| UAF Faculty Senate | 2007-2008 | Oliveira |
| FITC Safety Committee Chair | 2007-2008 | Oliveira |
| SFOS Student Financial Aid Committee | 2007-2008 | Oliveira |
| SFOS Curriculum Council | 2007-2008 | Oliveira |
| SFOS Student Affairs Committee | 2007-2008 | Oliveira |

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|---|--------------------|----------|
| FITC Director Search Committee | 2007-2008 | Oliveira |
| Facilities Committee | 1 hr every 2 weeks | Smiley |
| Hazardous Waste Comm. | 1 hr every 2 weeks | Smiley |
| Assist Dr. Balaban in his job as director of FITC. Alleviate some of his administrative pressures by working on the facilities committee. | 2008 | Smiley |

| Table 5.3: Professional Service | | |
|---|-----------------------------------|------------|
| Activity | Duration | Faculty |
| Journal of Aquatic Fishery Products Technology | Jun 08 | Crapo |
| Journal of Food Engineering | May 08 | Crapo |
| Journal of Food Process Engineering | Nov 07 | Crapo |
| Vice-Chair, USDA W1004 Committee on Fisheries, Aquaculture and International Trade | 2006-2008 | Fong |
| <i>Journal of Food Protection</i> , reviewed nine manuscripts; four hours per manuscript | 7/1/2007 | Himelbloom |
| <i>Journal of Food Safety</i> , ; reviewed six manuscripts; four hours per manuscript | 7/1/2007 | Himelbloom |
| <i>Food Control</i> , reviewed four manuscripts; four hours per manuscript | 7/1/2007 | Himelbloom |
| <i>LWT- Food Science and Technology</i> , reviewed one manuscript, four hours | 7/1/2007 | Himelbloom |
| <i>Journal of Food Science</i> , reviewed one manuscript; four hours | 7/1/2007 one year | Himelbloom |
| <i>Journal of Aquatic Food Product Technology</i> , reviewed one manuscript and its revision, four hours | 7/1 – 9/30/2007 | Himelbloom |
| American Association for the Advancement of Science – Arctic Division Symposium, co-organized and co-moderated, with USDA-ARS (Peter Bechtel), a food and agriculture symposium in Anchorage as part of the three-day meeting | 7/1 – 9/30/2007 | Himelbloom |
| American Society for Microbiology – Alaska Branch, serving as chair-elect; planning annual meeting for spring 2009 in Kodiak | 1/1/2008, one year | Himelbloom |
| Alaska Seafood Processors Leadership Institute, lecture on seafood microbiology and laboratory practice for about a dozen attendees | 3/27/2008 | Himelbloom |
| All-SFOS Faculty Videoconference, attended the all-day meeting via distance delivery | 10/20/2007 | Himelbloom |
| FITC Director candidate interviews, met with the two finalists for the position and attended their seminars | 7/9 – 7/11/2007; 8/6- 8/9/2007 | Himelbloom |
| Bristol Bay Campus undergraduate faculty member (Todd Radenbaugh), e-mailed faculty member regarding possibility for undergraduate instruction about seafood science as part of their certificated and A.A. degree programs | 8/24/2007 | Himelbloom |
| Faculty meeting with SFOS fishery undergraduate coordinator (Trent Sutton), provided discussion with FITC colleagues regarding our interest in the undergraduate program and instruction in seafood science courses | 8/6/2007 | Himelbloom |
| Alaska Food Safety Advisory Committee, appointed to state advisory committee to the Alaska Department of Environmental Conservation; attended audioconference (2/27/2008) | 10/29/2007 to present | Himelbloom |
| Institute of Food Technologists, session proposal reviewer, reviewed a panel discussion proposed for the Aquatic Food Products Division, 2 hrs | ¼/2008 | Himelbloom |
| SFOS Strategic Planning videoconference, participated in discussions for developing the strategic plan | 5/22/2008 | Himelbloom |
| University of Delaware Sea Grant Program, recommended two other seafood microbiologists for peer-reviewing a proposal | 5/16/2008 | Himelbloom |
| Arctic Research Consortium of the U.S. videoconference, attended annual meeting via distance to learn the issues regarding arctic research for developing new projects | 5/14 – 5/15/2008 | Himelbloom |

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|---|-----------|----------|
| Reviewer for J. Food Sci.; Food Chem; J. Agric. Food Chem, and J Aquat. Fod Prod. Tech | 2007-2008 | Oliveira |
| Consultant for PANFISH (Pan-American Network of Fish Inspection, Quality and Processing | 2007-2008 | Oliveira |
| Alaska Representative - Pacific Fisheries Technologists Association | 2007-2008 | Oliveira |
| NMFS meeting: setting NMFS research agenda in Aquacultural Feeds | 3 days | Smiley |
| USDA-ARS setting next 5 year research agenda in National program 106 Aquaculture | 3 days | Smiley |
| USDA-ARS Seafood Waste Project annual meeting Seattle WA | 1 day | Smiley |
| USDA-ARS Symposium Feb 2009, Portland OR | 2 weeks | Smiley |
| J. Morphology | 20 hours | Smiley |
| USDA-SBIR | 20 hours | Smiley |

6. Professional Development.

Describe/list activities that contributed to your professional development e.g. continued formal education, workshops, conferences, and fellowships - and indicate how they contributed to your development.

- *Charles Crapo* was on sabbatical between August 16, 2007 and January 5, 2008. Travel to California, Oregon, Florida, North Carolina and Virginia to visit Sea Grant seafood technology specialists.

Istanbul and ANUGA, Cologne, 10/2-18/07. Visited Istanbul and gave seminar at Istanbul University, learned about the fisheries in the Black Sea and eastern Mediterranean Sea. Attended ANUGA, the largest food show in the world, to learn about baby foods and seafoods in the European markets.

International Seafood Show, Boston, 2/24-29/08, Traveled with ASPLI group to learn about seafood marketing worldwide. Learned Alaska's place in the salmon industry and the new products developed and marketed in 2007/8. Also visited processors in Danvers and New Bedford, MA to observe value added processing for Alaska pollock, a demersal fish processor and the New Bedford scallop industry.

Hong Kong, Indonesia and Thailand, 4/11/08-5/10/08, Visited seafood processors, markets and live fish operations to learn about processing Alaska products, handling methods and the techniques for holding and shipping live fish.

- *Quentin Fong* was on sabbatical between Jan. 1, 2008 and June 8, 2008

- *Brian Himelbloom* participated in the inaugural weeklong workshop and symposium, Molecular Methods in Food Microbiology Symposium and Workshop, June 23-27, 2008, Colorado State University, Fort Collins, CO. The information and techniques provided a knowledge boost in understanding how to apply these modern approaches to rapid microbial identification.

Participated in a two-day workshop to learn about seafood sensory panel techniques, West Coast Fall Sensory Workshop, National Fisheries Institute, October 11-12, 2007, Long Beach, CA. Techniques will be used in upcoming research projects and this information gives some background on applying this science.

Participated in a two-day workshop to learn the fine points about writing proposals to the National Science Foundation, UAF, Fairbanks, August 22-23, 2007. Information will be useful for writing more competitive grant proposals.

- *Alexandra Oliveira*. Training and certification for seafood HACCP (March 2008, Kodiak - AK)

- *Scott Smiley*. Foreign travel to scientific meetings and industry expositions is a crucial element in developing a well-rounded understanding of the global nature of the seafood business for FITC and MAP faculty. One can not fathom how the decisions of harvesters, processors or distributors in the Alaska Seafood Industry are arrived at, by being solely familiar with business activities in Alaska or the US. Without a detailed understanding of how fish are sold, how much they are sold for, to whom they are sold and why, we can not advise our clientele appropriately. Viewed as excessive or undisciplined by those unfamiliar with globalization, contact with international markets is actually crucial to performing effectively as an FITC faculty member.

7. Honors and Awards.

List any honors and awards received, including the year in which you received them.

- Murat Balaban: Received the University of Florida Research Foundation Professorship for the 2nd time, this time for the period 2007-2009. The award included a \$3,000 contribution to his research and a \$5,000 increase to his yearly salary for 3 years.
- Brian Himelbloom: Received three-year appointment (sixth consecutive) to the editorial board of the *Journal of Food Protection* (October 15, 2007).

8. Building Related Activities.

The FITC building was getting old, and was in dire need of repair, maintenance and upgrade. There was an accumulating need regarding deferred maintenance. All of the upgrades and repairs mentioned below were made possible by the support of SFOS and Dean Wiesenburg: without his personal determination to make these upgrades possible, none of them would be realized. FITC is grateful for his leadership.

Budget

The 2nd week after his arrival, Murat Balaban visited Fairbanks and attended the SFOS directors meeting. During the meeting, due to a projected deficiency in the overhead revenues, it was decided that a 5% across-the-board cut was necessary in the SFOS budget. This translated to a \$42,000 loss in FITC budget. The result was the loss of 2 staff positions. The 2 faculty positions that were discussed during Murat Balaban's hiring process were also put on hold.

Maintenance and repairs

After the loss of two staff members on February 1, 2008 the building was left without maintenance and custodial functions. A Request for Quotation was prepared, and Jon Melin started on February 29, 2008 for the maintenance of the building. Jon and his team did an admirable job, organizing, repairing, maintaining, and upgrading the facilities. Ron Moore whose intimate knowledge of the building, coupled with his determination to solve problems and make the building livable was also instrumental in coordinating with Jon towards the improvements.

Custodial

FITC lost its custodial staff member on February 1, 2008. Until the 2nd quarter of 2008, Friday "garbage runs" were performed by faculty, as well as vacuuming the building and taking care of toilets. After the 2nd quarter of 2008 the custodial duties were contracted to Red River, Inc., and they have been doing a satisfactory job.

Internet wiring

John Haverlack from SFOS, Fairbanks visited FITC and prepared a report on the condition of IT infrastructure and phones on October 31, 2007. With the help of Stephen Bodnar and Gary Newman, a plan was developed, and a budget to modernize the system emerged. This included the replacement of the inadequate wiring, and the old hardware used to support the network and the distance education capabilities. During the first quarter of 2009, the wiring and some of the hardware were replaced. This allowed better distance education capabilities, and recently two courses have been delivered by distance education.

Telephones

The phone system was old, and the equipment manufacturer stopped supporting this type of system 2 years ago. This meant that if the system went down, there was no possibility to repair it. Since one of the missions of FITC is service, having to access to reliable phone service was of great concern. During the first quarter of 2009 the phone system was replaced with a modern system.

Haz-Mat building

The Haz-Mat building deteriorated over time, due to design flaws and the marine environment. In 2008 there was \$60,000 already allocated for its repair. This money needed to be spent by July 2008. However, after the inspection of the building by an architect, the full extent of the damage was uncovered. The funds available were only half of what was needed to complete the project. It was decided that the building would be transformed from a Haz-Mat level to a storage level facility, with extensive repairs and re-building, and heating of the space. During the demolition and rebuilding phase, the chemicals in the Haz-Mat building were temporarily stored in the KFRB Haz-Mat facilities next-door, with the gracious approval of Dr. Robert Foy. The new storage facility has been made available in the first quarter of 2009, and the chemicals were transported back to our building.

Stairs

The damage in the stair surfaces constituted a potential safety hazard. The planning for the repair and replacement of the surfaces started in 2008, and the replacement was performed in 2009.

FITC Web Site

During his trip to Fairbanks on January 14, 2008 Murat Balaban met with John Haverlack and Carin Stephens to discuss Web site issues. He was allowed to perform the maintenance and update of the FITC Web site, in addition to his Web site. Since then many additions and updates have been performed, and some of the courses taught in FITC have been supported by Web-based material.

Freezers

Refrigeration facilities are vital to FITC that has a mission related with aquatic foods. The blast freezer room became un-operational after an electrical problem in the building. The efforts to replace the compressor, and to relieve, maintain and clean the other two freezer rooms took one year.

Building electrical issues

It has become apparent that the building electrical system has considerable problems. The main electrical problem in the ground fault circuits damaged the blast freezer compressor and other laboratory instruments in FITC, burned out one of the 4 electrical connections to the building.

Also, inspection of the power conditioning system revealed that some labs had been removed from power conditioning. Work is progressing slowly to re-configure the electrical system, and to balance and re-wire the power conditioning facilities.

The FITC Building has been open for public use when there are no classes or other FITC activities that could be affected by such use. On Friday March 21, 2008 FITC held a reception in the Alfred Owen Building during the Comfish activities in Kodiak. The event was attended by more than 100 people. Many other public activities occurred after-hours.

9. FITC Policy Council Activities.

FITC had 2 open positions in the FITC Policy Council (PC). The following names were nominated for appointment:

- Dr. George Pigott. University of Washington (retired).
- Dr. Greg Peters. Alyeska, Dutch Harbor.

The continuing Policy Council members were:

- Jay Stinson
- Dean Adams
- Jeff Stephan
- Chuck Jensen
- Heather McCarty

The FITC PC did not meet since 2006. After the new members were appointed by the President, preparations for the next PC meeting were initiated. Details of the meeting on October 8, 2008 and the minutes will be made available in the next report (July 1 2008 to June 30 2009).