Cytotechnology on the Move: The Future is Now!
A Report from the Future of Cytotechnology Task Force
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Co-Chairs, Future of Cytology Task Force

The American Society of Cytopathology provides a continuous forum for identifying and discussing trends that have the potential to impact our profession. The following timeline demonstrates the commitment by ASC to promote the value of cytology and how cytology contributes to patient care and outcomes.

Timeline
2001: Task Force on Cytology Education
2002: Cytotechnology Professional and Educational Advisory Committee
2006: New Cytopathology Profession Task Force
2007: Multidisciplinary Steering Group on the Cytology Profession
2009: ASC Summit
2010: Future of Cytology (FOC) Task Force Created

The first ASCP certification exam in cytotechnology was offered in 1957. To date there are 15,030 individuals who have the CT(ASCP) certification. Based on the above timeline, 2,160 cytotechnologists have become ASCP certified from 2000 to 2009. This group of cytotechnologists has routinely heard the value of the Pap test challenged and the future of cytology debated for their entire professional career.

The Multidisciplinary Steering Group on the Cytology Profession electronically published Facing the Future of Cytopathology: Discerning the Future needs of Our Profession. This publication is referred to as the White Paper. The White Paper is available on the ASC Website.

The White Paper details the background leading up to the 2009 Summit, the current and evolving environment influencing the practice of cytopathology, describes six potential strategies and their advantages and disadvantages. Summit participants endorsed Strategy #3: Expand existing cytotechnology models using morphology skills with novel educational tools. This strategy expands the role of cytotechnologists based on the unique knowledge, skills and abilities (KSA) of the cytotechnologist. The unique KSA of cytotechnologists is their ability to recognize cell morphology.

After release of the White Paper Dr. Hormoz Ehya, 2010 ASC President, convened a new task force to examine the White Paper, using fresh eyes and perspectives. The Future of Cytology (FOC) Task Force members received the White Paper and charges in the summer of 2010. FOC Task Force members include:

continued on page 23
An immediate action step of the Future of Cytotechnology Task Force was to initiate a new column in The ASC Bulletin called Transformation in Education and Practice. This column spotlights training programs and laboratories that are innovative. Training programs may be using innovative teaching strategies/tools and/or modifying the cytotechnology curriculum in order to meet the expectations of their communities of interest. Laboratories featured in this column are successfully expanding the roles of cytotechnologists. If you missed reading this column, members can access The ASC Bulletin on line. The following is a current list of published contributions. More articles are planned for future editions of the Bulletin.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Month/year</th>
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<tbody>
<tr>
<td>Cytotechnology Program, Albany College of Pharmacy &amp; Health Sciences</td>
<td>Indra Balachandran, PhD, SCT(ASCP)CFIAC</td>
<td>July 2010</td>
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<tr>
<td>Transformation in the Cytopathology Laboratory at the University of Rochester Medical Center</td>
<td>Michael S. Facik, MPA, CT(ASCP)</td>
<td>September 2010</td>
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<tr>
<td>Transformation in Cytotechnology Education at the University of North Carolina-Chapel Hill Campus</td>
<td>Allen C. Rinas, MS, SCT(ASCP)CMIAC</td>
<td>September 2010</td>
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<tr>
<td>Transformation in Education at the Mayo School of Health Sciences</td>
<td>Jill Caudill, MEd, SCT(ASCP)CM</td>
<td>November 2010</td>
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<tr>
<td>Transformation in the Cytopathology Laboratory at AmeriPath Indiana</td>
<td>Trent M. Coy, SCT, MB(ASCP)</td>
<td>November 2010</td>
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The FOC Task Force also solicited feedback on the White Paper from the American Society for Cytotechnology (ASCT), American Society for Clinical Pathology (ASCP), the College of American Pathologists (CAP), Papanicolaou Society of Cytopathology (PSC) and the International Academy continued on page 24
Many see opportunities for cytotechnologists to increase their visibility and add value to the health care team. These opportunities include performing immediate assessment of adequacy on FNAs, triaging FNA material for special stains, flow cytometry, immunohistochemical staining and molecular diagnostics.

of Cytology (IAC). Letters from four of the organizations were received just prior to the ASC Annual Scientific Meeting. Dr. George Birdsong and M. Sue Zaleski, Co-chairs of the FOC Task Force, collated the comments and presented them to the ASC Executive Board. The recommendations, gaps, concerns and opportunities are included here. They are not exhaustive of the comments received nor are they presented in any order.

**Recommendations**

The White Paper focuses on changes to the field of cytotechnology and not cytopathology. A recommendation was made to change the title of the White paper from “Facing the Future of Cytopathology” to “Facing the Future of Cytotechnology.”

**Gaps**

There was a stated desire for more details or data on several topics that include:

- Describe the role of the cytopathologists to meet future needs in cytopathology, molecular diagnostics or cytogenetics.
- Describe how cytology will contribute to diagnostic medicine, especially genomics as it relates to tumor diagnostics, and how our efforts will affect patient outcomes.
- Provide a root cause for cytotechnology training program closures.

**Concerns**

New skills for cytotechnologists may duplicate skills and infringe on others on the health care team such as histotechnologists, immunohistochemists, cytogenetics technologists, molecular diagnostic technologists or pathology assistants (gross dissection and histopathology). Could training programs that wish to teach these skills obtain special dispensation for program accreditation?

- How would the education, training and certification requirements change to reflect these new skills?
- How would these new skills impact job attainment, job satisfaction and salaries?

Computer-assisted microscope systems create higher workload expectations. What is the impact of these higher workloads on job satisfaction and tenure in the career/profession?

**Opportunities**

Many see opportunities for cytotechnologists to increase their visibility and add value to the health care team. These opportunities include performing immediate assessment of adequacy on FNAs, triaging FNA material for special stains, flow cytometry, immunohistochemical staining and molecular diagnostics.

Ms. Lynnette Savajoja, Co-chair of the Multidisciplinary Steering Group on the Cytology Profession, and Ms. Zaleski, Co-chair of the FOC Task Force, presented a panel luncheon at the 2010 ASC Annual Scientific Meeting. The session explored the trends impacting the future of pathology and laboratory medicine and concluded with an interactive session with forty workshop attendees. Participants were asked to report on the expanded responsibilities of cytotechnologists in their labs which generated the following:

- FNA adequacy – on-site and via telepathology, endoscopic ultrasound, transbronchial and endobronchial ultrasound
- Molecular Testing – FISH, ER/PR, HPV Testing, cystic fibrosis testing
- Quality Assurance and Quality Control
- LEAN
- CAP inspections

continued from page 23

continued on page 25
The Future of Cytotechnology Task Force is developing a survey to go out to panel participants to gain greater understanding of how these laboratories achieved this successful transition. The survey requests laboratory demographics as well as demographics about the cytotechnologists assigned these expanded roles. The FOC Task Force also strives to learn how the laboratory gains support for these roles and includes a query on how cytotechnologists are trained to perform these new roles.

At the Annual Meeting the FOC Task Force met with incoming ASC President, Dr. Nancy Young. Dr. Young guided an enthusiastic discussion and aligned her support with a proposal for a panel presentation at the 59th ASC Annual Scientific Meeting. Dr. Young also invited the Task Force to consider a demonstration project that could be funded by the ASC Foundation.

In closing, Trent Coy, who became CT(ASCP) certified in 2001 and author of The ASC Bulletin column on Transformation in Education and Practice in the 2010 November issue of the Bulletin, puts the future of cytotechnology into perspective. “…. It is evident to me that the topic has been discussed since the inception of cytotechnology, with the constant base of the clearly successful Pap test and the extension of cancer detection by morphology to virtually any body site. The net impact on me has been to be aware of the ‘market dynamics’ of technology, costs and regulation effecting cytology and to also be proactive in seeking new horizons and new opportunities. I believe this practical and proactive attitude is inherent to the field as demonstrated by history of cytotechnology.”

continued from page 24

- Billing, Coding
- Prescreening Biopsies
- Reviewing hematology slides flagged by instruments for parasites, Leukemia
- Frozen sections/Mohs/Grossing on site and via telepathology
- LIS development
- Student training
- Performing immunohistochemical staining
- Digital Pathology – Archiving, Data Mining
- Marketing
- National QA Officers
- Clinical Trial Management
- Digital Image Analysis
- Industry Advisors
- Project Management

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