Many of our members have asked my opinion of our future with NRG Oncology. As many of you know, no one more than I was opposed to the mandate to go from ten to five cooperative groups. Following the announcement, I traveled to Washington D.C. and visited with NCI officials and members of Congress. But my plan for a stand-alone GOG similar to the Children’s Oncology Group (COG) was fruitless. We took the next best choice with NRG Oncology; three somewhat similar groups combined as one strong, unique larger group.

We have submitted a strong grant for a start date of March 1, 2014.

From now until March 1, 2014 and thereafter, our members will need to adapt to a changing environment that includes less money and fewer protocols from the NCI, CTEP and DCP. There will be a shift among the approved protocols from a preponderance of Phase III studies, to larger Phase II studies. In addition, as we go forward there will be more industry-only studies, so our group portfolio will be very different from 10-15 years ago.

I believe this is a challenge that we can meet and succeed. Our Group’s strength lies with the esprit de corps among our members. We have demonstrated over the years that our members are the only individuals who can successfully complete credible studies in gynecologic cancers - our “ace in the hole.” If you want studies in gynecologic cancers well-executed, there is only one resource GOG/NRG Oncology.

We have lost some independence - but we have gained two good friends and time will tell.

“I believe this is a challenge that we can meet and succeed.”
EPITHELIAL OVARIAN CANCER IS A GENERAL TERM FOR TUMORS THAT ARISE FROM MULLERIAN TISSUES (FALLOPIAN TUBES, OVARIES, ENDOMETRIOTIC FOCI AND PERITONEAL CAVITY). THERE ARE FIVE MAIN TYPES OF OVARIAN CANCER: 1) HIGH GRADE SEROUS (HGS), 2) CLEAR CELL, 3) ENDOMETRIOID, 4) MUCINOUS AND 5) LOW GRADE SEROUS (LGS). THE FIVE TYPES OF OVARIAN CANCER DIFFER IN THEIR STAGE DISTRIBUTION (CLEAR CELL, ENDOMETRIOID AND MUCINOUS OVARIAN CANCERS ARE MORE LIKELY TO PRESENT WITH EARLY STAGE DISEASE), GENETIC RISK, TISSUE OF ORIGIN (PRECURSOR LESION) AND MOLECULAR GENETICS.

<table>
<thead>
<tr>
<th>Proportion of Cases</th>
<th>High Grade Serous (HGS)</th>
<th>Clear Cell</th>
<th>Endometrioid</th>
<th>Mucinous</th>
<th>Low Grade Serous (LGS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>12%</td>
<td>11%</td>
<td>3%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Genetic Risk Factors</th>
<th>Clear Cell</th>
<th>Endometrioid</th>
<th>Mucinous</th>
<th>Low Grade Serous</th>
<th>Clear Cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRCA 1/2</td>
<td>HNPCC</td>
<td>HNPCC</td>
<td></td>
<td></td>
<td>HNPCC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precursor Lesion</th>
<th>Clear Cell</th>
<th>Endometrioid</th>
<th>Mucinous</th>
<th>Low Grade Serous</th>
<th>Clear Cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serous tubal intraepithelial carcinoma (STIC)</td>
<td>Endometriosis</td>
<td>Endometriosis</td>
<td></td>
<td>Serous Borderline Tumor</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Molecular Genetics</th>
<th>Clear Cell</th>
<th>Endometrioid</th>
<th>Mucinous</th>
<th>Low Grade Serous</th>
<th>Clear Cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>p53, BRCA 1/2, Homologous recombination defects, tumor microenvironment</td>
<td>PI3K, ARID1A, MSI</td>
<td>PTEN, beta-catenin, ARID1A, MSI</td>
<td></td>
<td>KRAS, HER2</td>
<td>BRAF, KRAS, NRAS</td>
</tr>
</tbody>
</table>

Knowing the type of ovarian cancer your patient has is the first step toward providing individualized therapy. Clinical trials focused on HGS are run through the Developmental Therapeutics Committee. Clinical trials focused on Clear Cell, Mucinous and LGS are run through the Rare Tumor Committee. Endometrioid cancers are included in trials on a study by study basis depending on the target of the agent(s) being evaluated.

In order for us to advance our understanding of these diseases, an increased focus on scientifically driven phase II trials is ongoing within the Gynecologic Oncology Group. These trials are often large, single stage, randomized phase II trials that are open group wide. These trials are assigned high priority points at the level of a phase III study.

Randomized phase II trials available through the Developmental Therapeutics Committee:

<table>
<thead>
<tr>
<th>Study</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3003</td>
<td>A randomized, double-blind, placebo-controlled phase II study of VTX-2337 in combination with pegylated liposomal doxorubicin in patients with recurrent or persistent epithelial ovarian, fallopian tube or primary peritoneal cancer</td>
</tr>
<tr>
<td>186H</td>
<td>A randomized phase II evaluation of weekly paclitaxel versus weekly paclitaxel with oncolytic reovirus (REOLYSIN) in the treatment of recurrent or persistent ovarian, fallopian tube or primary peritoneal cancer</td>
</tr>
<tr>
<td>186K</td>
<td>A randomized phase II study of cabozantinib versus weekly paclitaxel in the treatment of persistent or recurrent epithelial ovarian, fallopian tube or primary peritoneal cancer</td>
</tr>
</tbody>
</table>

Trials available through the Rare Tumor Committee:

<table>
<thead>
<tr>
<th>Study</th>
<th>Eligibility</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>268</td>
<td>Clear Cell</td>
<td>A phase II evaluation of temsirolimus in combination with carboplatin and paclitaxel followed by temsirolimus consolidation as first-line therapy in the treatment of stage III-IV clear cell carcinoma of the ovary.</td>
</tr>
<tr>
<td>254</td>
<td>Clear Cell</td>
<td>A randomized phase II evaluation of sunitinib in the treatment of persistent or recurrent clear cell ovarian carcinoma.</td>
</tr>
<tr>
<td>241</td>
<td>Mucinous</td>
<td>A GCIG intergroup multicenter phase III trial of open label carboplatin and paclitaxel +/- bevacizumab compared with oxaliplatin and capectabine +/- bevacizumab as first line chemotherapy in patients with mucinous epithelial ovarian or fallopian tube cancer.</td>
</tr>
<tr>
<td>281</td>
<td>LGS</td>
<td>A randomized phase II/III study to assess the efficacy of trametinib in patients with recurrent or progressive low grade serous ovarian or peritoneal cancer <strong>To activate 2013</strong></td>
</tr>
</tbody>
</table>
GOG-3003
Randomized, placebo-controlled phase 2 protocol comparing Doxil® (PLD) versus Doxil® (PLD) + VTX-2337 in platinum-resistant ovarian cancer

High Priority Protocol: 9 Membership Points per Patient

VTX-2337: Novel Immunotherapy
- Small molecule toll-like receptor 8 (TLR8) agonist
- Stimulates the innate immune system
- Synergistic with Doxil® in ovarian cancer model (Dr. George Coukos, University of Pennsylvania)
- Safety & tolerability in combination with Doxil® established (GOG-9925)
- Subcutaneous dosing

Please visit us at our booth at the 87th Semi-Annual GOG Meeting in San Antonio, Texas in July!

Contact Us: clinical affairs@ventirx.com / 206.689.2259
Satellite Symposium Provides Insight Into Current Clinical Practice

Treatment of ovarian cancer remains a challenge for many healthcare providers due in large part to unique disease characteristics, the large volume of results from ongoing clinical trials, and the continuing emergence of new therapeutic agents. An independent satellite symposium, Improving Management Strategies for Ovarian Cancer Patients: Clinical Practice Patterns, Evolving Data, and Clinical Trial Awareness,* was held during the GOG 86th Semi-Annual Meeting on January 25, in San Diego, California. This forum, attended by 292 healthcare professionals, provided an excellent educational venue to discuss the current ovarian cancer treatment landscape, ongoing clinical trials, and emerging therapies.

David S. Alberts, MD, Director of the University of Arizona Cancer Center, chaired this CME/CE-accredited program and was joined by Don S. Dizon, MD, FACP of the Harvard Medical School, Thomas J. Herzog, MD of Columbia University Herbert Irving Comprehensive Cancer Center, and Susan C. Modesitt, MD, FACOG, FACS of the University of Virginia Health System. The panelists presented and discussed current and emerging evidence for optimal frontline and recurrent ovarian cancer management. The discussion focused on clinical trials that have shaped the current ovarian cancer landscape and those likely to impact the future of ovarian cancer therapy. Throughout this interactive symposium, participants were asked a number of questions concerning contemporary care of ovarian cancer patients and GOG clinical trials. Results of participant opinions after the educational activity are summarized.

When presented with a case scenario involving a newly diagnosed 62-year-old with poorly differentiated papillary serous adenocarcinoma and a performance status (PS) of 0, the majority of participants (62%) selected 6 cycles of intraperitoneal (IP) cisplatin and paclitaxel therapy. For a 46-year-old recurrent patient with a PS of 0 relapsing with a 5 cm pelvic mass 18 months after IP cisplatin and paclitaxel treatment, the majority of providers (74%) would perform a secondary cytoreduction. When asked what chemotherapy approach would be recommended for this patient, 39% selected carboplatin and paclitaxel (CP) and 38% selected carboplatin and gemcitabine with bevacizumab. Seventy-five percent of participants stated they treat patients who relapse between six and 12 months differently than those who relapse later.

Reflecting current debate, when participants were asked what endpoint should be used in GOG frontline ovarian cancer clinical trials 60% selected progression-free survival, 36% selected overall survival, and 3% selected quality of life.

The recently completed GOG-0252 study, which is a 3-arm randomized trial comparing IV and IP platinum-based chemotherapy regimens with bevacizumab, was selected as the GOG clinical trial most likely to affect clinical practice by the majority of practitioners (73%). The recently closed GOG-0262 study evaluating chemotherapy dose with optional bevacizumab was selected by 20% of participants and 7% selected TRINOVA-3 (GOG Partners), which examines IV CP with or without trebananib (AMG 386) in stage III or IV newly diagnosed patients.

The majority of participants (81%) were most likely to use an antiangiogenic agent to treat ovarian cancer in the recurrent setting with 50% most likely to use antiangiogenic agents in platinum-resistant disease and 31% in platinum-sensitive recurrent disease. Thirteen percent would use antiangiogenic agents in the frontline setting and 6% stated they never use antiangiogenic agents.

Perceived efficacy (30%) and lack of reimbursement (30%) were the most common barriers to incorporating the education into clinical practice. Newness of the treatment data, lack of commercial availability, and treatment side effects were selected as the main barrier by 15%, 13%, and 12% of participants, respectively (Figure 1).

The complete satellite symposium presentations may be viewed at http://www.educationalconcepts.net/online-activity-event.aspx?PUID=15279.

* The satellite symposium was supported by an educational grant from Genentech. ACCME and ACPE certification was provided by Educational Concepts Group, LLC.
New Horizons GYN Cancer Research Fund

The GOG would like to thank the following individuals, families and organizations for their generous contributions to the New Horizons GYN Cancer Research Fund:

In Memory of Harriet Marks
Dr. David and Connie Hoogerland

In Memory of Michelle R. Rucker
Denise Armstrong
Barbara-Ann Burks
Nicole Cole
Katie Moe
Valikia Newsome

Mr. and Mrs. Peaker
Hazel Robinson
Pat Smith
Reid Temple
Dakara Rucker
Wright

In Memory of Phyllis Ferancy
Sharon & Gerald Ferancy
Jean Hans
Michael Lonsway

Charities Foundation (Lonsway)
Noreen & Nick Popiel

In Memory of Holly Hoezee
Kyleigh Hoezee

In Honor of Jody Lesage
Corrine Zarwan

In Honor of Sharon Stockman
Joel I. Sorosky

In Honor of Sharon Day
Diane Day

Special Thanks
The GOG would like to extend a special thanks to Ms. Judi A. Rees for her generous donation to the GOG New Horizons Cancer Research Fund. Ms. Rees made her contribution in honor of her physician, Dr. Albert Pisani.

If you would like to make a donation, please visit our website at www.gog.org under “Helpful Links.”

“Chasing the Cure”
10K Run
5K Run/Walk
5K Pump and Run
1 Mile Fun Run

September 21, 2013
Doyle Community Center, Sturgis, MI
Race starts at 9 a.m.
For more information and registration, visit chasingthecure.net
Proceeds benefit the New Horizons GYN Cancer Research Fund.
For information on hosting an event, please contact the GOG Development Office at (410) 721-7126.

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Astellas Oncology
Boehringer Ingelheim
Bristol-Myers Squibb
Celgene Corporation
Cell Therapeutics, Inc.
Champions Oncology
Egen, Inc.

GOG ICT Industry Collaboration Team
Eisai Oncology
Eli Lilly & Company
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GlaxoSmithKline
Janssen Products, LP
Morphotek, Inc.
Novartis Pharmaceuticals
OvaGene Oncology
OxiGENE, Inc.
Pfizer Oncology
Regeneron Pharmaceuticals
VentiRx
Cancer of the uterine cervix is the third most common gynecologic cancer diagnosis; with screening, however, it is a rare cause of death among gynecologic cancers in the United States and other developed countries. Unfortunately, 86% of cases occur in countries that do not have access to screening and prevention programs; globally, cervical cancer remains the second most common type of cancer (over 500,000 new cases per year) and cause of cancer deaths (nearly 280,000 deaths) among all types of cancer in women.

Carcinoma of the cervix is largely the result of a persistent infection with high-risk types of the human papillomavirus (HPV). Almost 99% of cervical cancers have detectable HPV DNA. There are multiple high-risk HPV types and more than half of cervical cancer is caused by infection with HPV type 16. The HPV genome encodes for two proteins important in the pathogenesis of malignant disease, called E6 and E7. At the molecular level, the ability of E6 and E7 proteins to transform cells relates in part to their interaction with two intracellular proteins, p53 and retinoblastoma (Rb), respectively.

Because of the importance and of the early proteins in cervical cancer progression, the E6 and E7 antigens have been an intense focus of cancer immunotherapies. As these antigens are located in the intra-cellular compartment, vaccine strategies have been mostly aimed at improving the cellular immune responses. The ability to deliver antigen to antigen presenting cells in order to develop HLA class I presentation to induce CD8+ cytotoxic T cell responses is widely believed to be necessary for developing an effective therapeutic anti-tumor vaccine.

Protein-based vaccines have been tested for the treatment of genital warts or dysplasia in humans and have demonstrated safety and modest immune responses. In addition, vaccination using live-recombinant viruses has also been evaluated because these systems have the advantage of high-efficiency DNA transduction and gene-expression. A novel vaccine is now in development which utilizes a novel bacterial vector engineered to express the E7 protein. This vaccine, called ADXS 11-001 (Lovaxin) utilizes an attenuated form of Listeria monocytogenes, based on biologic advantages. L. monocytogenes is a beta hemolytic gram-positive bacterium that has been used to study cell mediated immunity for decades.

ADXS 11-001 (Lovaxin C, Advaxis) consists of a recombinant strain of Listeria monocytogenes that secretes the HPV 16 E7 protein, and which has been markedly attenuated by partial complementation of prfA, the transcriptional factor needed for expression of Listeria virulence genes. ADXS 11-001 uses a multi-copy episomal expression system to secrete a 67-kDa fusion protein consisting of the first 417 amino acids of Listeria protein Listerialysin O (LLO), followed by

Vaccine continued on next page
Dr. William Creasman receives Golden Apple Award from HVO

SGO partner Health Volunteers Overseas (HVO) is pleased to announce that William Creasman, MD, is a recipient of the eighth annual HVO Golden Apple Award. As part of its observances for World Health Day on April 7, HVO created this award to recognize the extraordinary educational contributions of volunteers to international program sites. Each volunteer honored with this award has demonstrated a strong commitment to HVO’s educational mission by working on curriculum development, teacher training, didactic or clinical training, or the enhancement of educational resources.

Republished from Issues, the Society for Gynecologic Oncology’s bi-weekly, electronic newsletter.

Announcing the 87th Semi-Annual Meeting for the Gynecologic Oncology Group

July 18 - 21, 2013

Marriott Rivercenter
San Antonio, Texas

Vaccine continued from previous page

the HPV 16 E7 protein. Thus the engineered L. monocytogenes bacterium secretes and expresses this E7 protein, which induces an immune response that promotes a potent anti-tumor response targeting the HPV E7 protein.

Clinical data on this vaccine is now available from a randomized trial being performed in India. In the LM-LLO-E7 study, ADXS 11-001 is administered to women with recurrent cervical cancer with or without cisplatin. All patients were previously treated with radiation therapy and/or chemotherapy. The safety summary from 65 patients (140 doses) was reported at the 2011 meeting of the Society of Therapeutic Immunotherapy. ADXS11-001 was associated with chills (including rigors) in 22 subjects. Other adverse events have been similar including fever (n=6), vomiting (n=4) and nausea (n=2). Acute renal failure was reported in three patients. Efficacy data in 88 patients were reported at the ASCO 2012 Annual meeting. Overall survival was 62, 41, and 40% at 6, 9, and 12 months, respectively. The combined response rate was 8% (3 complete and 4 partial responses).

This biologic rationale and ongoing experience in India serves as the basis for GOG 265 (NCT01266460), a trial of ADXS 11-001 in women with recurrent, progressive, or metastatic cervical cancer. GOG 265 incorporated a phase I safety lead in of the first six patients enrolled. This is nearing completion and the GOG has moved to proceed to phase II testing. This trial is open to all women who have received up to two prior systemic chemotherapeutic regimen for advanced, metastatic, or recurrent carcinoma of the cervix (not included chemoradiation or adjuvant chemotherapy following radiation therapy); prior biologic/targeted (non-cytotoxic) therapy is allowed. Because it is a biologic agent, the protocol requires review by Biosafety Committee at each local institution. However, ADXS 11-001 is so highly attenuated that each institution can request a waiver from each Institutional Biosafety Committee (IBC) as a non-pathogenic (or BSL-1) agent, which differs from the pathogenicity of the parent Listeria strain (which is a BSL-2 agent). Therefore, institutions without an IBC cannot participate in this study. We encourage all sites to review the protocol and encourage participation.
Gynecologic Oncology Group
86th Semi-Annual Meeting
San Diego - 2013

Meeting attendees visit the Exhibit Hall in between sessions.

86th Semi-Annual Meeting symposium.

The "masters of ceremonies" welcome everyone to the reception.

Checking in at the registration desk.

Enjoying the festivities during the reception.

Left to right, Doctors Creasman and DiSaia congratualte 2013 Young Investigator Award recipient, Dr. James Ferriss.

For the latest news and information, visit www.gog.org