As the Chapter year is winding down and my term as president comes to an end, I couldn’t feel more blessed to have been your Chapter president for two terms. It was an honor to serve in this position the first year, and having the opportunity to serve a second term is truly a gift. I’ve been fortunate to work with a strong board of directors who continue to amaze me with their passion and dedication to bring meaningful events to the CaSA Chapter.

To the board of directors and committee members serving 2015-2016 and 2016-2017, thank you from the bottom of my heart. It takes teamwork to succeed in life, and each of you make CaSA shine! I would especially like to thank Heather Denny and Wes Robbins for their guidance and support throughout my journey as president. You are both “rockstars” and I am so very thankful for you both!

Looking forward to the new Chapter year beginning in August, I am very excited to see what the new board of directors will bring to the Chapter. Incoming president and the entire 2017-2018 board will be working throughout the summer to bring inspiring education events, and fun networking events, of course! If you’ve ever thought about getting involved and/or volunteering with the Chapter, now is the perfect time. The Chapter’s Annual Planning Session will be held late August and is free for our members. At this meeting, we’ll introduce you to new Board Members and Committee Chairs and provide an update of Chapter goals and plans for the coming year. Keep an eye on our weekly eblasts for registrations details.

As I wrap up my last President’s Message for the newsletter, I feel humbled, yet proud of the accomplishments we’ve shared as a Chapter the past two years. The commitment this position requires can be overwhelming at times, but it has been more rewarding than I could have ever imagined. My hope is that our members feel I have led the Chapter in the right direction, with the respect it deserves.

In closing, I would like to once again thank all of the current board and committee members for your time and efforts. Your passion and dedication are truly inspiring! And, to our entire membership, sponsors, and volunteers – “Thank You” we wouldn’t be where we are without your continued support.

Thank you for being on this journey with me. Have a safe and happy summer!

Lisa Kerner
President, ISPE CaSA Chapter
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### TIME TO CAST YOUR VOTE

#### 2017 – 2018 ISPE INTERNATIONAL BOARD OF DIRECTORS ELECTION

Vote by 13 September 2017

You have the opportunity to choose representatives to fill open seats on ISPE's International Board of Directors.

It's an important position! The Board creates the Society's vision, establishes Society policies, and controls Society business.

Look for your electronic ballot via email* in late July.

*Email will be sent by Intelliscan, Inc., our independent outside election partner. Please add intelliscaninc.net to your "safe sender" list to ensure you receive your official email ballot.

### Board of Directors 2017

<table>
<thead>
<tr>
<th>Executive Board</th>
<th>Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>President</strong></td>
<td><strong>Director at Large</strong></td>
</tr>
<tr>
<td>Lisa Kerner</td>
<td>Chip Chappell</td>
</tr>
<tr>
<td><strong>Vice President</strong></td>
<td><strong>Director at Large</strong></td>
</tr>
<tr>
<td>Wendy Haines, PhD</td>
<td>Andy Ferrell</td>
</tr>
<tr>
<td><strong>Treasurer</strong></td>
<td><strong>Director at Large</strong></td>
</tr>
<tr>
<td>Mike Putnam</td>
<td>Wes Robbins</td>
</tr>
<tr>
<td><strong>Secretary</strong></td>
<td></td>
</tr>
<tr>
<td>LeAnna Pearson Marcum</td>
<td></td>
</tr>
<tr>
<td><strong>Past President</strong></td>
<td></td>
</tr>
<tr>
<td>Heather Denny</td>
<td></td>
</tr>
</tbody>
</table>

**ISPE** Carolina-South Atlantic Chapter

Connecting a World of Pharmaceutical Knowledge
Membership Corner

Golf Tournament Wrap-up

By Kevin Debb

• We had an early morning threat of rain, but the weather held off for a wonderful day of golf.
• 192 Golfers
• 40 Sponsorships
• There were plenty of On-Course-Games and a bunch of great raffle prizes. All of the money collected for mulligans, ball drop and the raffle was turned over directly to the Holt Brothers Foundation.

• A full accounting is not complete, but we raised more than $10,000 for the Holt Brothers Foundation. ISPE CaSA was pleased to partner with the Holt Brothers Foundation for the second consecutive year to help raise money for their philanthropic mission and the wonderful causes they support. Thank you to Torry Holt, Terrence Holt, Mary-Ann Baldwin and the entire staff at the Holt Brothers Foundation that helped to make the ISPE CaSA Golf Tournament a success.

(continued next page)
Lastly, thanks again to all of our sponsors, players and volunteers. Your support and financial commitment to ISPE CaSA is essential for the chapter to continue to provide fun and engaging networking events.

Sequence
CAI
EHS

Bahnson
Ellab
Bosch
Belimed
Avid Solutions
WIIKA
M.G. Newell Corp
Festo
ICQ Consultants
Membership Corner

Membership Development Committee

By Mark Davies, Membership Chair

Two new people have been added to the Membership committee. The first is Gerald Houston (based out of Atlanta), a Team Manager from PCI. Secondly, Marcus Bennett from CAI has also joined the committee.

The Membership committee is working on a brief survey to find out why people leave ISPE. The results will be shared with the Board. We have also contacted other Chapters / Affiliates to see what they do to retain members.

There are still savings of 10% on 2- and 3-year memberships! If you have any question about ISPE or the CaSA Chapter, please contact me at membership@ispecasa.org.

Welcome New Members
New Members who joined Apr 21, 2016 through Jun 5, 2017

Marcus Lamont Bennett
B Dawn Lamont
Mr. Wolfgang Berner
Xiaotong Li
Matt Blumling
Katelyn E. Mathis, MPH
Dr. Fani Boukouvala
Bryan Oliver

Mr. David Andrew Davis
Roxane Olson
Brooks Fardy
Joan Otton
Nicolas R. Gallegos, B.S.
Padmaja Patnaik, MS, PhD
Mrs. Betty Jean Garner
Jim Prunty

Brian Gentry
Sonali Ryland
Daniel Groves
Mr. Omar Santos
Rebecca Anne Heatherman
Geraldine Turner
Jesse Jones
Juan Valencia

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Members Corner

Newsletter Section: Young Professionals Committee

CurlBio Talk and Tour for Students and Young Professionals

By Tony Le

Students and professionals from the industry attended the CurlBio talk and tour.

CurlBio is a start-up company founded by Dr. John Sexton, who also serves as an associate professor at the BRITE program at NC Central University. CurlBio is focused on developing a potential therapeutic to treat NASH, Non-Alcoholic Steatohepatitis, and Fatty Liver Disease. Currently, there are no such drugs on the market that can treat Fatty Liver Disease. Dr. Sexton also talked about the steps he had to take to start his company, which included registering it with the IRS and how to maintain good bookkeeping practices. The potential next step for CurlBio is to find a therapeutic to treat Beta-cells in the pancreas in Type-II diabetes patients, and how to extend liver quality over long distances for transplants.
On March 13, 2017, the ISPE CaSA chapter held two simultaneous Talk & Tour events which were hosted by Medicago and Catalent. Both events were well attended and successful. Attendees were shown products that are currently in production as well as upcoming projects. Networking and refreshments followed the event.

A successful education event was also held in Atlanta on May 3rd. ISPE CaSA partnered with Georgia BioScience Training Center in Social Circle, GA. Keynote speakers presented innovative designs featuring visual reality. A tour of the facility was followed by the presentation.

ISPE CaSA would like to thank everyone involved in making these events a success.
April 27, 2017

ISPE/Carolina Chapter
1500 Sunday Dr
Ste 102
Raleigh, NC 27607-5151

Dear Friends,

Every one counts. Every dollar counts. Every moment counts in the fight against cancer.

I can’t begin to thank you enough for your support to the V Foundation for Cancer Research. Your donation of $5,830.00 received on April 17, 2017 to the V Foundation is already making a difference!

Your gift funds the very best cancer research in the country. The V Foundation has awarded over $170 million in cancer research grants nationwide and has grown to become one of the premier supporters of cutting-edge cancer research.

Every contribution to the V Foundation helps scientists advance treatment options, learn how to prevent cancer and save more lives. That’s the vision we share, and because of your thoughtful commitment, one day we’ll make it a reality.

Thank you for being on the V Foundation team—the team that aims to achieve victory over cancer!

Sincerely,

Susan Braun
Chief Executive Officer

P.S. Stay up-to-date on the exciting work you are funding by visiting www.jimmyv.org.

No goods or services were provided in exchange for your contribution.

“DON’T GIVE UP . . . DON’T EVER GIVE UP!”®
Membership Corner

Student Affairs Committee
By Marisol Hydock

Summer is upon us and ISPE-CaSA student members are taking a much needed break! The Student Affairs Committee is in the process of establishing a mentorship program. The planned launch of the mentorship program will be the Fall semester of 2017. We often have experienced professionals ask us how they can get involved with students – here’s your chance! If you are interested in participating or helping coordinate the program, please contact the SAC at ispecasasac@gmail.com. The SAC is looking for mentors from various roles within the industry - R&D, QC, Manufacturing, Engineering, Facilities, Business/Finance, etc...We look forward to hearing from you!

...We often have experienced professionals ask us how they can get involved with students– here’s your chance!...

CaSA COMMITTEES 2017

Education
Rachel Leahy

Newsletter
Rich Stanfield

IT/Social Media
Dan Santarsiero, PE

Technology Conference
Amy Lineberry, CP/IP

Student Affairs
Marisol Hydock

Membership Development
Mark Davies

Networking
Kevin Debbis, CP/IP

Young Professionals
Mariessa Perez
Membership Corner

Therapeutic Thursdays

Please start thinking about reserving Therapeutic Thursday events for 2018!!

We have a total of 21 Therapeutic Thursday events planned for 2017 (11 in the RTP Area, 8 in the ATL Area and 2 in Tampa). ISPE CaSA would like to thank all of our Therapeutic Thursday sponsors again for your support by hosting

Upcoming Therapeutic Thursday Events

<table>
<thead>
<tr>
<th>Date</th>
<th>RTP Area Sponsor / Location</th>
<th>ATL Area Sponsor / Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-Jul-17</td>
<td>CRB</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCI</td>
</tr>
<tr>
<td>31-Aug-17</td>
<td>AlfaNordic</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CAI</td>
</tr>
<tr>
<td>28-Sep-17</td>
<td>PCI</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greenville, NC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NNE</td>
</tr>
<tr>
<td>26-Oct-17</td>
<td>PCI</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Harrington PURE</td>
</tr>
<tr>
<td>30-Nov-17</td>
<td>CAI Jennifer Clark</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
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<td>OPEN DATE</td>
</tr>
</tbody>
</table>

Thank you!
Charter Medical, Ltd. has a 25-year history of developing and providing specialty single-use products to the blood transfusion, cell therapy, biotechnology, and pharmaceutical markets. Charter Medical prides itself on exceeding customers’ expectations through a commitment to continuous improvement, and to that end, sought out the expertise of GreenTech Solutions Group to upgrade the lighting in its 72,000 square-foot facility in Winston-Salem, NC.

After a careful assessment of the current lighting configuration in Charter Medical’s facility, a strategy was formulated to replace the lighting in office spaces, two cleanrooms and warehouse space. Photometrics were used to determine fixture allocation with light levels needed for compliance with federal regulations. During cleanroom installation, instrumentation was utilized throughout the process to monitor particle counts, ensuring that the cleanroom remained within compliance throughout installation.

The summary of benefits were as follows:
- 62% (over $22K) reduction in annual lighting energy usage, cost and greenhouse emissions
- $48,383 savings in energy rebates
- 275,286 kWh reduction in annual lighting energy use
- 62% reduction in greenhouse gas emissions
- Two-year payback!

Existing legacy T12 and T8 fluorescent troffers were replaced with high-efficiency LED panel fixtures in all office areas. Light-level dimming controls further increased energy efficiency throughout the facility. The office lighting upgrade not only improved the overall quality of light, integrated dimming controls allowed each employee to customize light levels to a particular task or mood.

After installation, subsequent cleaning and verification, the cleanroom areas were returned to service with minimal impact to production. The cleanroom areas saw an increase in light levels, improving acuity and task performance.

The new LED panels are smooth, clean and help to maintain cleanliness requirements in the room during operation. LEDs are more reliable than fluorescent fixtures, eliminating bulb changes that may impact the production efforts in the room while performing that bulb changeout, resulting in less down-time.

Philips LED highbays were utilized throughout the warehouse for lighting. With proper fixture configuration, warehouse lighting quality was dramatically increased, enhancing safety and efficiency.

GreenTech assisted in securing more than 50-percent of the project’s total cost in rebates from the Duke Energy: Smart $aver Incentive Program. The generous rebates, combined with remarkable energy savings, resulted in a quick two-year payback period for Charter Medical.

The lighting retrofit not only saved the company $22,022 in operational costs yearly, it also delivered a 62 percent reduction in greenhouse gas emissions, the equivalent of taking 41 cars off the road or planting 159 acres of forests.

The LED upgrade provided Charter Medical with a better quality, more evenly distributed light, brighter and more efficient spaces, and reduced their overall carbon footprint.

About GreenTech Solutions Group:
GreenTech Solutions Group was founded in 2009, designed as a full-service consulting firm to deliver proven energy-efficiency solutions that reduce clients’ consumption, help protect our environment, conserve resources, and ultimately generate timely return on investment. They specialize in cutting-edge energy-efficient lighting, energy management, mechanical efficiency, alternative energy production, and more, planning and implementing projects for businesses of all sizes in every industry nationwide. GreenTech’s team is composed of dedicated industry experts, each bringing extensive backgrounds and unique perspectives to every project. Their process has been designed to offer turnkey project delivery for each of its clients. They apply their experience and knowledge to assess and analyze each clients’ current situations thoroughly, identify cost-effective strategies for improving efficiency, develop a detailed plan, and oversee the implementation of the plan for optimal results. For more information, please visit http://www.greentechNC.com.
Advertising Opportunities in ISPE CaSA 2017 Electronic Newsletter

The ISPE CaSA Chapter produces six e-newsletters per year. ISPE CaSA sends out the newsletters via e-mail and via Web link to all of our Chapter Members throughout the Southeastern U.S., which reach top-notch pharmaceutical, biotechnology, and bio-science professionals and managers. These newsletters are also posted on our Web site so your ad can be accessed by interested visitors to our site.

The cost for a full color business-card-sized ad is $1000 per year. There is also the ability of positioning your ad on the front page of the newsletter for an additional $1000 per year for six issues. Space limits the number of front page to only four, and is offered to the first four paid advertisers on a first-come, first-served basis.

Also, if you would you like to have your targeted customers go directly to your website by simply clicking on your ad, a hot-link can be added to your submitted ad file for an additional $500 for the entire year.

You may choose one of the special offers below (pro-rated for partial-year advertising):

- SOLD OUT! $2,000 Full-color ad for six issues on the front page of each newsletter ($333/issue)
- $2,000 Full-color double-sized ad for six issues ($333/issue)
- $1,000 Full-color ad for six issues ($167/issue)
- $500 Adding a hot link for directing customers to your website by a simple click

We hope you will take advantage of these opportunities and advertise in the 2017 ISPE CaSA e-newsletter.

To reserve a placement of your ad please contact the ISPE-CaSA Headquarters at 919-573-5442 or via e-mail at info@ispecasa.org.

You will be notified via e-mail or telephone when your advertisement has been accepted by the ISPE-CASA Newsletter Committee and asked to submit your advertisement digitally. Full-color business card-sized ads (3.5” x 2”) or double-sized ads (3.5: x 4”) may contain your logo or other artwork. Artwork should be sent directly to newsletter@ispecasa.org.

We ask that your text be no smaller than 12 pt so that the text is easily readable in the electronic format. PDF, JPG, or TIF formats, are easiest for us to work with. Space is limited, sign up today!
2017 Newsletter Advertisement Order Form

| Company Name: |  |
| Contact Name: |  |
| Billing Address: |  |
| Contact Email: |  |
| Contact Phone: |  |

Check all that apply:

Note: Ads are business card size- 3 5/8" (w) X 2" (h)
Double-Sized Ads are 3 5/8" (w) X 4" (h)

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- $2,000  Full-color double-sized ad for six issues ($333/issue)
- $1,000  Full-color ad for six issues ($167/issue)
- $500  Adding a hot link for directing customers to your website by a simple click

Payment:

Make checks payable to: ISPE-CASA
Mail to: ISPE-CASA / Newsletter, 1500 Sunday Drive, Suite 102, Raleigh, NC 27607-5151

Or pay by Credit Card: ___ VISA MasterCard AMEX

CC#: ___________________________  Exp Date __________

Signature:______________________  Date: ______________

• info@ispecasa.org • Ph: (919) 573-5442 • Fax: (919) 787-4916 •

For office use only: GL000-2240/100-3300  Pd by Ck #________CC processed:________Date:_______Initials
ISPE CaSA Chapter
E-Newsletter Ads
Newsletter Ads Work for Your Business!

Our Chapter produces six e-newsletters per year, and we depend on the support of our advertisers. We send out the newsletters via e-mail and via web link to all of our Chapter Members throughout the Southeastern U.S. That means you get targeted access to top-notch pharma, biotech, and bio-science professionals and managers. These newsletters are also posted on our website so your ad can be accessed by interested visitors to our site.

Best of all, the cost is only $750 for your full color, business-card-sized ad for six insertions. That’s only $750 for targeted advertising in full color for an entire year!

Ask About HOT LINKS!!
Would you like to have targeted customers simply click on your ad and get right to your website?
A hot-link can be added to your ad, connecting readers directly to your company website for an additional $500.00 for a whole year.
If you are interested in advertising with the ISPE CaSA e-newsletter, please contact our Chapter headquarters at:

ISPE-CaSA
1500 Sunday Drive
Suite 102
Raleigh, NC 27607
Tel: 1-919/573-5442 • Fax: 1-919/787-4916
info@ispeCaSA.org

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Would you, or someone you know, like to publish your technical content in these pages?

Please submit any and all technical content to info@ispecasa.org or send directly to our Newsletter Chair at rich.stanfield@cagents.com.

EDITORIAL POLICY
Articles should be written for technical professionals in the pharmaceutical, biotechnology, and medical device industries. The author is responsible for the accuracy and correctness of all statements contained in the manuscript (ISPE Carolina-South Atlantic Chapter assumes no liability.) Manuscripts should be submitted with a brief, three to four sentence synopsis of the article, as well as a brief biographical statement about the author that includes educational background, title and job affiliation, job responsibilities and major areas of accomplishment.

A word to the ISPE CaSA Newsletter advertisers:
Thank you all for your continued support. Without it we could not have the wonderful support staff to get our ISPE CaSA Members the news in such a timely and professional fashion. If you have updates to your advertisements or find any other error, please contact us so that we can serve you better.