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RHO Px CHI post

VOLUME 8, ISSUE 2

An award-winning, bimonthly, electronic, student-operated newsletter publication by the St. John's University College of Pharmacy and Health Sciences Rho Chi Beta Delta chapter

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RHO Rx CHI post

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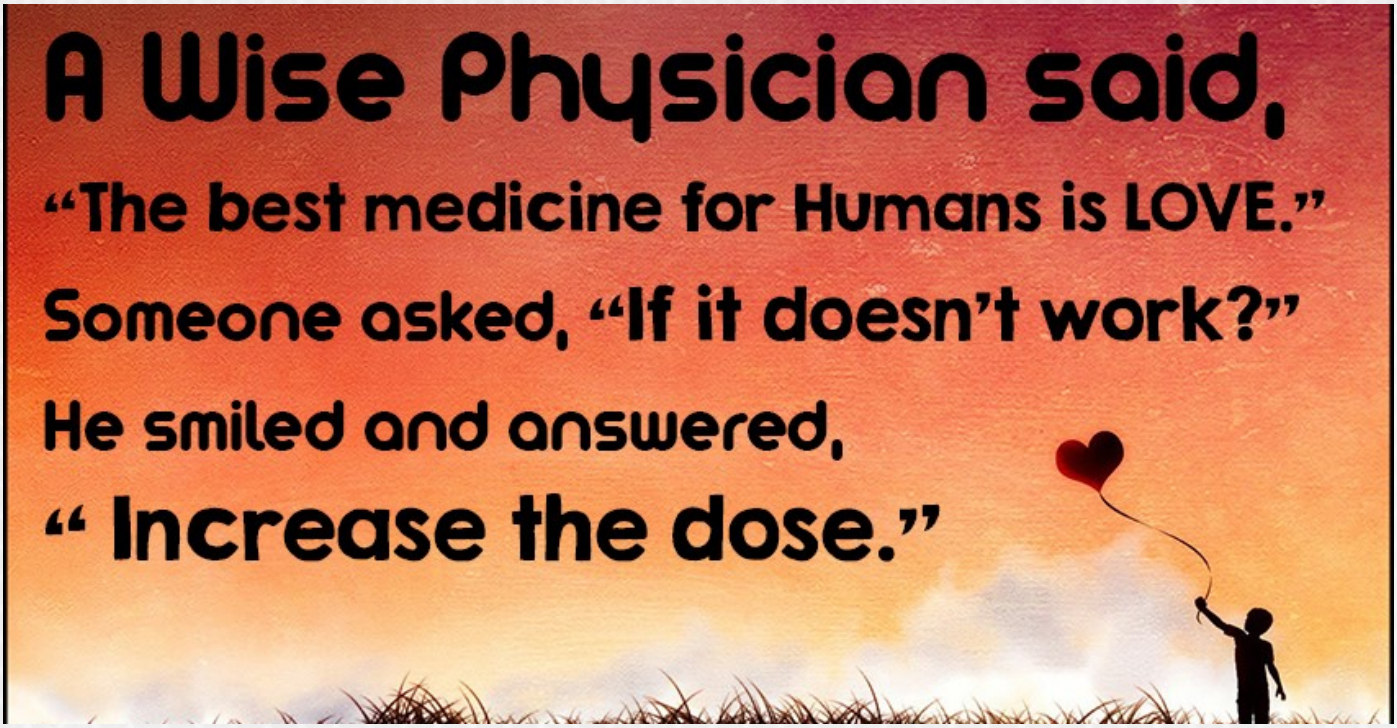
QUOTE OF THE MONTH

By: Matthew Kahn, Graphics Editor



Food and Drug Administration (FDA) approves baloxavir marboxil (XOFLUZA™): first new flu drug in 20 years

By: Ruchira Kasbekar, PharmD Candidate c/o 2020

It is estimated that approximately 80,000 Americans died from the flu during the 2017-2018 flu season which is the highest death toll from influenza in the last four decades.[1] As the 2017-2018 flu season progressed, there was a shortage of oseltamivir (Tamiflu®) availability. To prevent shortages during the 2018-2019 flu season, the Food and Drug Administration (FDA) approved baloxavir marboxil (XOFLUZA™) in October of 2018 for the treatment of acute uncomplicated influenza in patients 12 years of age and older who have been symptomatic for no more than 48 hours.[2] The approval was granted to Japanese pharmaceutical company Shionogi and Co., and the drug will be distributed throughout the United States by Genentech, an American biotechnology company based in San Francisco, California.[2]

Baloxavir marboxil (oxymethyl methylcarbamate) is a polymerase acidic endonuclease inhibitor and is the first influenza treatment to be approved by the FDA in twenty years.[3] It is a prodrug which is converted via hydrolysis to free baloxavir that is the influenza virus antagonist. Endonuclease is an influenza virus specific enzyme in RNA polymerase complex which is used in gene transcription. Baloxavir marboxil is active against influenza strains A/H1N1 and A/H5N1, viruses with the neuraminidase (NA) substitution H275Y, A/H3N2 virus with the NA substitution E119V, A/H7N9 virus with the NA substitution R292K, and type B virus with NA substitution D198E.[2] Additionally, in research conducted to test the novel drug's cross resistance with other classes of anti-influenza medications, it was found that baloxavir marboxil and neuraminidase inhibitors target different viral proteins.

Two clinical trials were conducted by Shionogi and Co., and Genentech to ensure the drug's safety and efficacy before it was approved.[3] In both trials, baloxavir marboxil was recommended for its ability to shorten the time needed to relieve influenza symptoms. The first clinical trial was a placebo-controlled phase 2 dose finding trial. It included 400 adults between the ages of 20 to 64 with the average age being 38 years old. Sixty three percent of the patients enrolled in the trial who received baloxavir marboxil had influenza A/H1N1, twenty five percent of the patients had influenza B, and less than fifteen percent of enrolled patients had influenza A/H3N2. The estimated time needed to relieve symptoms in influenza B patients taking baloxavir marboxil 40 mg was 63 hours (95% CI of 43, 70), while subjects receiving the placebo experienced complete symptomatic relief after 83 hours (95% CI of 58, 93).[4]

The second clinical trial was a phase 3 active and placebo-controlled trial. This trial examined patients which contracted the A/H3N2 strain of influenza. One thousand four hundred and thirty-six adults and adolescents between the ages of 12 to 64 were enrolled in the study. Patients that were between the ages of 20 to 64 were administered baloxavir marboxil, the placebo single oral dose on Day 1, or oseltamivir twice a day for five days. Adolescents between the ages of 12 to 20 received baloxavir marboxil or the placebo as a single oral dose. The results of the trial found that there is no difference between oseltamivir and baloxavir marboxil in terms of the time needed to alleviate influenza symptoms. For subjects between the ages of 12 and 17, the median time needed for complete symptomatic relief after having received baloxavir marboxil was 54 hours (95% CI of 43, 81) compared to

93 hours (95% CI of 64, 118) after having received the placebo. [4]

Baloxavir marboxil is to be administered as a single dose oral formulation against both influenza A and B.[4] It has not shown to be effective in children under the age of 12 as well as individuals weighing less than 88 pounds. Symptoms are seen to reduce significantly within two days of administration and the drug can be taken with or without food. Patients should be advised to not take baloxavir marboxil with dairy products, polyvalent cation containing laxatives, antacids, and dietary supplements. Co-administration with these products may decrease the plasma concentration and reduce the efficacy of baloxavir marboxil. Common side effects of baloxavir marboxil include mild symptoms such as diarrhea and bronchitis.[4]

Baloxavir marboxil offers a single dose regimen compared to other flu medications, such as oseltamivir, which provide multi-day dosing regimens. This is a huge benefit to many patients since adherence and convenience are major issues for people of all ages who are taking medications. As new drugs come onto the market, pharmacists have the responsibility to make their patients aware of newly available therapeutic options as well as ensure that compliance is maintained with all their medication regimens.

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[Author(s)]. [Article Title]. Rho Chi Post. [Year and Month Published]. [Volume]([Issue]):[Pages].

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Fingolimod's (Gilenya®) expanding role in the treatment of pediatric multiple sclerosis

By: Michael Lim, PharmD Candidate c/o 2020

In 2010, the Food and Drug Administration (FDA) approved fingolimod (Gilenya®) for the treatment of adults with relapsing multiple sclerosis (MS).[1] Historically, fingolimod has been used as a convenient second line oral treatment upon failure of initial disease-modifying therapy for relapsing-remitting MS in adult populations.[2] Therefore, when a patient is refractory to treatment with first line disease-modifying agents such as glatiramer acetate (Copaxone®) or one of the beta interferons such as interferon beta-1b (Betaseron®), he or she may be placed on fingolimod. In May of 2018, the FDA announced the approval of fingolimod for the treatment of relapsing MS in children that are ten years of age or older.[1] The approval marked a milestone in MS treatment with fingolimod becoming the first drug approved to treat multiple sclerosis in pediatric populations.[1]

Evidence of fingolimod's efficacy in pediatric patients was established in a clinical trial conducted by fingolimod's manufacturer, Novartis.[3] Comparing fingolimod against interferon beta-1a intramuscular injections, the Novartis PARADIGMS study - a phase three clinical trial - explored both the safety and efficacy of the agents in children and adolescents with MS.[4] The PARADIGMS study was also the first ever randomized controlled clinical trial specifically designed to study pediatric multiple sclerosis.[3] In the trial, treatment with fingolimod over a period of up to two years resulted in a statistically significant eighty two percent reduction in the annualized relapse rate compared to a forty six percent reduction found with interferon beta-1a intramuscular injections.[1,3] In addition, data measured via magnetic resonance imaging demonstrated a significant reduction in newly enlarging T2 and Gd-T1 lesions in the brains of patients treated with fingolimod compared to the interferon beta-1a treatment arm.[3] According to one meta-analysis of randomized trials in relapsing-remitting MS, the volume and number of such lesions were associated with increased relapses and disability progression.[3,5] Thus, the MRI data further suggests fingolimod's efficacy in pediatric patient populations.

Prior to initiation of fingolimod in pediatric patients, it is recommended that all appropriate immunizations are completed in accordance with current immunization guidelines.[6] The recommended dosage of fingolimod in adults and children ten years of age and older weighing more than forty kilograms is 0.5 mg orally once daily.[6] For the same group of patients weighing less than or equal to forty kilograms, the recommended dosage of fingolimod is 0.25 mg orally once daily.[6] When fingolimod is initiated in pediatric patients, monitoring for signs and symptoms of bradycardia is recommended for six hours after the first dose, as initiation of this therapy results in a decreased heart rate.[6] Monitoring during the six-hour period should be continued until resolution of the abnormality if heart rate is less than 45 bpm in adults, less than 55 bpm in pediatric patients twelve years of age or older, or less than 60 bpm in pediatric patients aged ten or eleven.[6] In the PARADIGMS study, the side effects observed in pediatric patients were similar to those seen in adults and fingolimod's package insert

notes no difference between patient populations in terms of the drug causing increased risk of infection and progressive multifocal leukoencephalopathy.[1,6]

While most patients with multiple sclerosis experience their first symptoms between the ages of twenty and forty, two to five percent of people with MS experience symptom onset before the age of eighteen with estimates suggesting that 8,000 to 10,000 children and adolescents in the United States have multiple sclerosis.[1] In light of fingolimod's new role, Billy Dunn, M.D. and director of the Division of Neurology Products in the FDA's Center for Drug Evaluation and Research, comments, "For the first time, we have an FDA-approved treatment specifically for children and adolescents with multiple sclerosis… Multiple sclerosis can have a profound impact on a child's life. This approval represents an important and needed advance in the care of pediatric patients with multiple sclerosis."[1]

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Targeting biomarkers in immuno-oncology: current agents and its clinical impact

By: Jonathan Mercado (PharmD Candidate c/o 2019), Rebecca Sin (PharmD Candidate c/o 2019)

Immuno-oncology is an advanced and rapidly growing area of research focused on utilizing the body's immune system to help fight cancer. Immunotherapy has demonstrated clinical efficacy and unprecedented rates of response in treating specific cancers, usurping the classical approach to chemotherapy and becoming the standard of care when applicable. There are two general approaches to immunotherapy in cancer. The first is a nonspecific approach that involves strengthening the immune system by utilizing interleukins, interferons and colony stimulating factors to increase white blood cell production, help control cell proliferation, and further regulate a plethora of cell functions. The second approach that has shown to be the most efficacious and continues to be extensively researched involves using a class of drugs known as checkpoint inhibitors. Nivolumab (Opdivo®), pembrolizumab (Keytruda®), ipilimumab (Yervoy®), and atezolizumab (Tecentriq®) are classic examples of checkpoint inhibitors. Checkpoint inhibitors block the body's natural restrictive proteins and receptors designed to prevent white blood cells from attacking normal cells. By inhibiting those checkpoints, the drug induces the immune system to begin assailing oncogenic cells when it previously could not. These proteins, also known as biomarkers, are the core focus of immuno-oncology. Currently, there are a handful that are being targeted in contemporary practice.[1]

A significant targeted biomarker in oncology is programmed cell death protein 1 (PD-1), which functions to facilitate the development, immunity evasion, and prognosis of several solid tumors.[2] Another critical biomarker is programmed cell death-ligand 1 (PD-L1), a ligand that interacts with PD-1 to diminish immune response. In certain tumors the up-regulation of PD-L1 occurs and signaling through this pathway contributes to inhibition of active T-cell immune surveillance of tumors. Binding of PD-L1 to the PD-1 receptor located on T cells inhibits T-cell proliferation and cytokine production, which is associated with negative outcomes.[3,4] PD-L1 tumor expression is measured using a diagnostic assay known as an immunohistochemistry (IHC) test which predicts the response rate to certain checkpoint inhibitors. The results of an IHC test guide clinicians in determining a patient's course of treatment. Tumors with a low expression of PD-L1 may respond to anti-PD-1/PD-L1 therapy. On the other hand, clinical trials have demonstrated greater response rates and longer progression-free survival in tumors with a high expression of PD-L1.[5]

Two checkpoint inhibitors which are classified as PD-1 inhibitors are nivolumab and pembrolizumab. Nivolumab is a human IgG4 monoclonal antibody which binds mostly to the N-loop of the PD-1 receptor.[3,6] Therefore, nivolumab blocks the PD-1 receptor from interacting with PD-L1 and PD-L2. Consequently, the PD-1 pathway mediated inhibition of the immune response is suppressed. Nivolumab is approved for numerous types of cancers including melanoma, metastatic non-small cell lung cancer, advanced renal cell carcinoma, classical Hodgkin's lymphoma, head and neck squamous cell carcinoma, urothelial carcinoma, microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) metastatic colorectal cancer, and hepatocellular carcinoma.[3] Pembrolizumab targets the PD-1 biomarker through a similar mechanism.[7] Compared to nivolumab, pembrolizumab mostly binds to the CD loop of the PD-1 receptor.[6] Pembrolizumab is approved for melanoma, non-small cell lung cancer, head and neck cancer, classical Hodgkin's lymphoma, primary mediastinal large B-cell lymphoma, urothelial carcinoma, MSI-H solid or colorectal tumors, gastric cancer, and cervical cancer.[7] Certain indications of the two aforementioned drugs overlap and compara-

tive data for pembrolizumab's and nivolumab's efficacy in the treatment of certain cancers has been published.[6]

On the opposite side of the coin, a class of drugs known as PD-L1 inhibitors target the other end of the same pathway. PD-L1 inhibitors target only the specific ligand rather than the receptor. This is critical because the binding of PD-L2 to the PD-1 receptor boosts activation of CD3 proteins and inducible costimulator (ICOS) in T-cells which provides increased immune response against oncogenic cells. Furthermore, the PD-L1 ligand separately targets another receptor known as the B 7.1 receptor. The combination of this ligand and receptor attenuates T-cell activation and cytokine proliferation. Studies have not shown a significant difference in response rates due to these mechanisms, however, further investigation is warranted. It has also been noted that PD-L2 may have some benefit in reducing pulmonary toxicity by reducing cytokine release from invariant natural killer T-cells (iNKT-cells). This diminished level of release decreases airway hyperactivity and inflammation.[4]

There are currently three Food and Drug Administration (FDA)-approved agents in the PD-L1 class of medication - atezolizumab, durvalumab (Imfinzi®), and avelumab (Bavencio®). The main differences between the three medications are their indications as well as one notable difference in their mechanisms of action. All three agents have been approved for use in urothelial carcinoma, but only atezolizumab and durvalumab are approved for non-small cell lung cancer and avelumab is the only agent in the group indicated for use in Merkel cell carcinoma.[8-10] Avelumab is also the only agent in the class that has been shown to cause antigen-dependent cytotoxicity (ADCC) which can lead to increased eradication of oncogenic cells or potentially more side effects.[4] Further research is necessary to confirm its specific effects.[4]

Another key biomarker in oncology is cytotoxic T-lymphocyte-associated protein 4 (CTLA-4), an immunoglobulin that is inhibitory in nature. Typically the immune system responds to infection and foreign bodies by activating T-cells. This is achieved when antigen presenting cells (APCs), in combination with the actual antigen and major histocompatibility complex (MHC) I or II, bind to T-

responsible for limiting T-cell activation and proliferation by binding to B7 and CD28 proteins. A fully human IgG1 monoclonal antibody known as ipilimumab was designed to be a checkpoint inhibitor that blocks CTLA-4 and allows for continuous T-cell activation that can be used to fight oncogenic cells.[11] While another monoclonal antibody by the name tremelimumab shares the same mechanism of action, ipilimumab is the only FDA-approved drug of its class. It is utilized to treat an assortment of cancers including unresectable or metastatic melanoma, advanced renal cell carcinoma, and MSI-H or dMMR metastatic colorectal cancer.[12] Combining nivolumab with ipilimumab results in enhanced T-cell function which is greater than the therapeutic effects of monotherapy with either drug. Treatment with combination therapy for metastatic melanoma and advanced renal cell carcinoma yields improved anti-tumor responses.[3]

Unlike the adverse effects of traditional chemotherapy, patients may experience immune-mediated adverse reactions from immunotherapy where immune cells not only attack oncogenic cells but also healthy, normal cells. Immune-mediated adverse reactions can be as simple as nausea, vomiting, diarrhea and fatigue or as complex as pneumonitis, colitis, hepatitis, dermatitis, nephritis, and neuropathies. Assessing the severity (Grade 1-4) determines the treatment approach in managing immune-mediated adverse reactions.[13] Management of some adverse effects such as nausea, vomiting and fatigue may only require lifestyle changes such as eating more soluble fibers, avoiding fatty foods, and taking naps or breaks throughout the day with symptomatic treatment as needed.[1] Management of more severe adverse effects may include symptomatic treatment, corticosteroid treatment, or withholding or discontinuation of immunotherapy. Appropriate corticosteroid treatment in most cases resolves the immune-mediated adverse effects along with preserving the anti-tumor response.[13]

Due to the specificity of checkpoint inhibitors, screening tools to determine the prevalence of these biomarkers in tumors are essential in determining which patients these immunotherapy agents will be effective in. Currently, the assays that have been developed which are able to detect PD-L1 protein in tumors are the Ventana SP263 assay, Dako 22C3 assay, and Dako 28-8 assay. All the

bridization (ISH), which is used to detect in situ transcripts of PD-L1, has also shown to be effective in combination with any of the three previously mentioned assays.[15] Unfortunately, assays for other targets are not yet fully developed or used. Moving forward, developing assays and other methods to screen for relevant biomarkers will be vital in propelling immuno-oncology to the frontline.

Despite its recent implementation in medicine over the last decade, immuno-oncology has swiftly made a positive impression and is widely being used in clinical practice. The concept of targeting vital biomarkers in the immune system to promote a patient's own body to defeat cancer is extraordinary and certainly preferable to using toxic chemotherapeutic medications when applicable. The identification of additional biomarkers from extensive research will broaden treatment selections for better tumor response rates and assist in tailoring immunotherapy regimens. Currently, a multitude of drugs are being investigated that target countless biomarkers including T-cell immunoglobulin and mucin-domain containing-3 (TIM3), lymphocyte-activation gene 3 (LAG3), and glucocorticoid-induced TNFR-related protein (GITR) to name a few. Identifying these biomarkers and determining which patients could potentially benefit from their checkpoint inhibitors is the core of this field. Further research is necessary, however, its clinical impact thus far is undeniable and the likelihood that it will dominate the practice of oncology within the next decade is almost certain.

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RHO CHI POST: TEAM MEMBERS

@ Anna Diyamandoglu

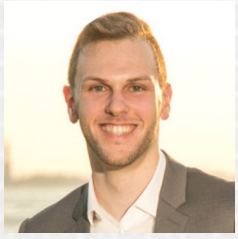
5th Year, STJ; Editor-in-Chief

Throughout my time in the PharmD program, my understanding of pharmacy as a profession has evolved and deepened as much as my desire to create awareness, particularly to non-science students, about the diverse role pharmacy plays in various healthcare and non-healthcare settings. I have always had an affinity for writing and look forward to combining my interests in literary composition, editing and pharmacy to produce relevant issues which both pharmacy students and non-pharmacy students alike will find relatable and take an interest in.

@ Karen Lin

Graduate Copy Editor [Content-Focused]

The Rho Chi Post allows me to have an appreciation for interactive pharmacy learning as well as the art of writing. With each newsletter, my goal is to provide current information to readers who come across the Post. As an editor, I hope to make the newsletter one-of-a-kind and motivate and influence writers to explore science with their creative talents.



@ Matthew Kahn

6th Year, STJ; Graphics Editor

I've always loved graphic design, so I was thrilled at the opportunity to be a part of the Rho Chi Post team and contribute to future publications. I'm excited to explore new ways to make the Post even better, and also to be continuously exposed to new ideas in the pharmaceutical field.

@ Nicollette Pacheco, PharmD

Graduate Editor [Graphics-Focused]

As a member of the Rho Chi Post team, I have a vast appreciation of what it means to be a pharmacist in the rapidly evolving world of healthcare. As a graduate editor, I will continue to bring my passion for science and creativity to the Rho Chi Post.

@ Mei Fung

Graduate Copy Editor [Content-Focused]

It's always interesting to see how the healthcare field evolves and all the advancements in pharmacy come to fruition. I joined the Rho Chi Post because it brings together a variety of these topics with distinguishing perspectives from our peers in pharmacy practice. I am ecstatic to join the team in continuing Rho Chi Post's endeavors in promoting the profession.

@ Davidta Brown, PharmD

Graduate Copy Editor [Content-Focused]

My two great loves are innovative science and quality writing; the Rho Chi Post is an insightful combination of both. As an editor, I look forward to bringing relevant information and fresh perspectives to the student and faculty of St. John's University, as well as to making the Rho Chi Post a newsletter that offers something new to every reader.

RHO CHI POST: TEAM MEMBERS

@ Jonathan Mercado

6th Year, STJ; Finance and Outreach Manager, Staff Writer

The Rho Chi Post breaks barriers for students that want a glimpse of their future and acts as an inspiration to work harder to achieve their goals. It is an embodiment of the motivation and intelligence that drives pharmacy students to be the most informed and capable professionals they can be. I am glad to a part of that mission and to channel my passion and interests through this newsletter.

@ Kathleen Horan

5th Year, STJ; Staff Editor

I have always loved writing, and I hope to couple my passion for writing with my interest in clinical pharmacy by becoming a writer and staff editor for the Rho Chi Post. As a writer and staff editor for the Rho Chi Post, I hope to write and edit informative and interesting articles that relate to the world of healthcare and pharmacy. I am so excited to join this team of student pharmacists and writers.

@ Katharine Russo

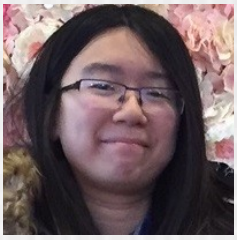
4th Year, STJ; Staff Editor

In my first two years as a pharmacy student, I was exposed to numerous opportunities to write medical based articles for classes and clubs. This is what first sparked my interest in health care literature and I look forward to being a Staff Writer for the Rho Chi Post in hopes of being able to share my passion and enthusiasm in writing health-care related publications.

@ Gabrielle Flavoni

Graduate Staff Editor

Writing has always been an enormous passion of mine, and I'm blessed to join such an amazing team that encourages me to explore it. As a new Staff Writer for the Post, my goal is to aid others in staying up-to-date about the pharmacy world, while also utilizing a creative outlet to make an impact on those around me.



@ Yao Jiang

6th Year, STJ; Staff Editor

Writing for the Rho Chi Post allows me to bridge the gap between class and the real world. It gives me a reason to focus on topics that are relevant to me as a practicing student pharmacist and explore new medications, laws, and ventures in our evolving profession. This process of researching, teaching oneself, and finally, teaching others is what we will ultimately do as future pharmacists. I am honored for this opportunity to be further exposed to what pharmacy has to offer all while giving back to the community that has taught me so much.

@ Anna Chen

5th Year, STJ; Staff Writer

The Rho Chi Post is a fantastic opportunity for future health professionals to keep up with the vastly changing healthcare world. As the pharmaceutical landscape keeps changing, it is crucial that we join the conversation in voicing our opinions and clinical input into current healthcare debates. Healthcare is limitless in possibilities to better patient centered care and I aim to deliver content that is both invigorating and inspiring to both students and practicing professionals.

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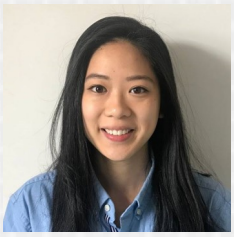


@ Karen Chen

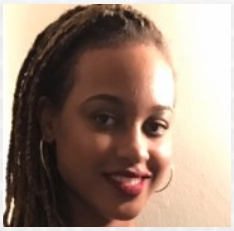
6th Year, STJ; Staff Writer

I am honored to be writing for the Rho Chi Post. The Rho Chi Post allows me to creatively express my opinions on various topics in pharmacy as well as communicate and share new information about our ever evolving profession. This platform connects students, allows us to educate each other and helps us all stay up to date. I have always loved writing and hope that by being a part of the Rho Chi Post team, I can continue to research and write articles that are relevant and inspiring.

@ Joseph Eskandrous

6th Year, STJ; Staff Writer

In the world of pharmacy, knowledge becomes outdated within hours of when you learned it. The miracle drug that used to be considered the standard of therapy is replaced by the latest and greatest. My role as a Staff Writer for the Rho Chi Post is to bring these changes to the forefront in order to empower future pharmacists and to improve the quality of patient care.



@ Thanesha Graham

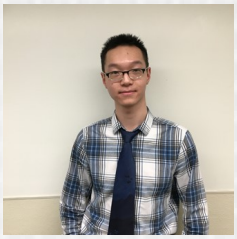
6th Year, STJ; Staff Writer

As a writer for the Rho Chi Post, I have the unique opportunity to convey my knowledge, discoveries and interests to the general public. I will be able to enlighten individuals about issues that will not only impact them, but also their families, and communities. I look forward to supplying this newsletter with valuable and relevant information about the evolving field of pharmacy.

@ Shivani Shah

4th Year, STJ; Staff Writer

As students in an dynamic healthcare profession, it is important to keep up to date with literature and publications regarding the pharmacy profession. Rho Chi Post serves as a great outlet for students to catch up on pharmaceutical innovations and progress going on in the career. Being a staff writer motivates me to constantly research and share new, exciting advancements with fellow students. I look forward to reading articles in the Post and hope to spark others curiosity and interest!



@ Alex Chu

6th Year, STJ; Staff Writer

With a constantly evolving healthcare field, it is imperative that we keep ourselves up to date with the latest news. This is what led me to join the Rho Chi Post, which constantly comes out with interesting and informative topics. It is an honor to write for the Rho Chi Post, and I wish to contribute innovative and intriguing articles to this newsletter.

@ Shireen Farzadeh

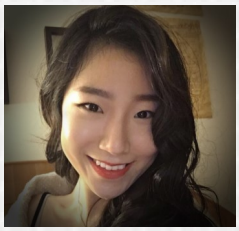
6th Year, STJ; Staff Writer

I am excited to join Rho Chi Post and contribute to the award-winning newsletter for students to share ideas, opinions, and pertinent topics! Writing for the Rho Chi Post is an opportunity to express our appreciation for pharmacy and educate ourselves and our peers. I hope to inspire students to discover their passion for writing and to stay up to date on our evolving profession!

@ Michael Lim

5th Year, STJ; Staff Writer

In the spirit of advancing the pharmacy profession, the Rho Chi Post never ceases to produce valuable content showcasing the innovation and diversity of the career. As a Staff Writer for the Post, I am honored to have the opportunity to use writing to both educate and push readers to strive for excellence in their professional pursuits. I hope that my contributions to the newsletter are able to foster growth in an informative and accessible manner.



@ Yeonah Suk

5th Year, STJ; Staff Writer

As a student interested in various branches of healthcare, the Rho Chi Post has provided me the opportunity to be part of an organization that discusses this field in a broad scope. As modern society continues to amalgamate and globalize multiple disciplines, it is important that we harmonize these elements and keep ourselves updated on their interactions. I joined the Rho Chi Post to both learn and contribute to a team that has immense diversity and my goal is to continue exploring innovative ideas through writing.

MISSION

The Rho Chi Post is an award-winning, monthly, electronic, student-operated, faculty-approved publication that aims to promote the pharmacy profession through creativity and effective communication. Our publication is a profound platform for integrating ideas, opinions, and innovations from students, faculty, and administrators.

VISION

The Rho Chi Post aims to become the most exciting and creative student-operated newsletter within St. John's University College of Pharmacy and Health Sciences

Our newsletter continues to be known for its relatable and useful content

Our editorial team continues to be known for its excellence and professionalism

The Rho Chi Post essentially sets the stage for the future of student-operated publications in pharmacy

VALUES

Opportunity

Teamwork

Respect

Excellence

GOALS

To provide the highest quality student-operated newsletter with accurate information

To maintain a healthy, respectful, challenging, and rewarding environment for student editors

To cultivate sound relationships with other organizations and individuals who are like-minded and involved in like pursuits

To have a strong, positive impact on fellow students, faculty, and administrators

To contribute ideas and innovations to the Pharmacy profession