



# WAKE COUNTY PHYSICIAN MAGAZINE

APR 2018 | Vol. 23 No. 2



Interested in joining a new club with fellow WCMS members? The WCMS has a new Book Club and Military Interest Group. See inside cover and page 9 for more details.

**EVIDENCE BASED  
MEDICINE**

DR. L. JARRETT BARNHILL

**COINHIVE MALWARE**

PAUL O'NEAL

**DIETRICH BONHOEFFER**

DR. ASSAD MEYMANDI





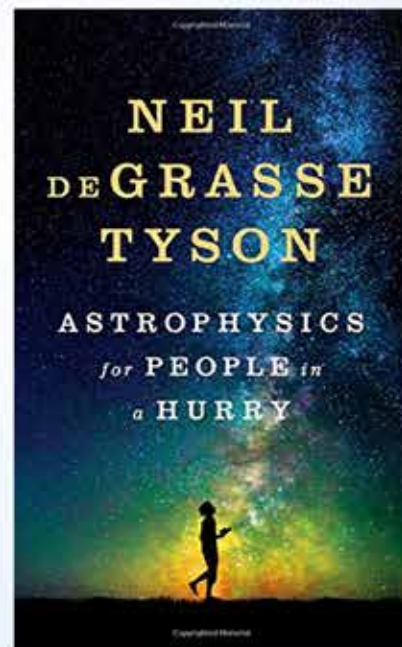
# wcms *book club*

## Come Join Us!

Wake County Medical Society  
Book Club

Inaugural dinner meeting

April 24, 2018 • 6:00 p.m.



*sponsored by*  
Wake County Medical Society

Contact: Paul Harrison, Executive Director  
[pharrison@wakedocs.org](mailto:pharrison@wakedocs.org)

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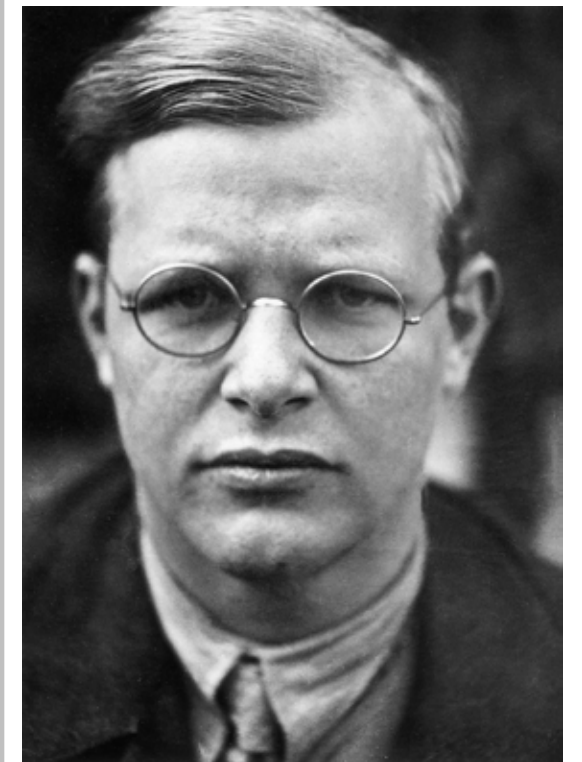
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LEGACY OF NOBLE WRITING,  
JUSTICE AND MODERATION

Assad Meymandi, MD, PhD, DSc (Hon)  
Dietrich was an exceptional pianist, and  
his parents thought he might pursue a  
music career. He was also athletic and  
played championship tennis and chess.  
He was expected to follow his father  
into neurology and psychiatry, but he  
surprised and dismayed his parents  
when he decided by age of fourteen to  
become a theologian and later a pastor.



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President, INI  
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vaulted to the top  
of the malicious  
threat list in less  
than a year  
after its debut!







The Wake County Medical Society is inviting its members to write articles for upcoming issues of the Wake County Physician Magazine.

Wake County Medical Society members wishing to write an article for publication are asked to submit a brief five sentence proposal.

Proposed article summaries could focus on your first person accounts of the personal side of practicing medicine (e.g., a patient overcoming all odds and achieving a positive outcome, experience with grief/overcoming grief, your best day practicing medicine, or care management success stories, etc.) or any other human interest story that might appeal to our readership-keeping in mind that anything resembling promotion of a current practice or practitioner, or taking a political stance would not be usable, with the final say on such matters resting with the editorial board. Please email your brief proposal to Paul Harrison, editor, by **June 15, 2018** at [pharrison@wakedocs.org](mailto:pharrison@wakedocs.org). We would like to include your article in our next publication—July 2018 which will be posted on our website. Thanks!

*Paul Harrison*

WAKE COUNTY PHYSICIAN MAGAZINE  
A WAKE COUNTY MEDICAL SOCIETY  
PUBLICATION

Paul Harrison, Editor



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*"The Wake County Physician Magazine is an instrument of the Wake County Medical Society; however, the views expressed are not necessarily the opinion of the Editorial Board or the Society."*

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**Paul O'Neal, President/Owner**

**International Networking, Inc.** has 30-years of IT experience with Fortune 500 companies, as well as, small and medium businesses in the areas of data and telecommunications, enterprise network infrastructure design and implementation, Windows desktop and server, data security and HIPPA compliance.



## OUR PREVIOUS ISSUES ARE AT YOUR FINGERTIPS

THEY ARE EASY TO  
FIND AND ACCESS  
AT [WAKEDOCS.ORG](http://WAKEDOCS.ORG)



May 12, 2018

Thank You to our nurses for their service, compassion and commitment to patients each and every day. Thank you!

## Mark your calendar

### WCMS UPCOMING EVENTS

#### WCMS BOOK CLUB

APRIL 24, 2018 • 6:00 PM

#### WCMS MILITARY INTEREST GROUP

TIME & LOCATION TO BE ANNOUNCED

#### PHYSICIAN WELLNESS SEMINAR

TIME & LOCATION TO BE ANNOUNCED

#### NC ART MUSEUM VISIT

JUNE 2018

#### DINNER WITH THE WCMS ALLIANCE

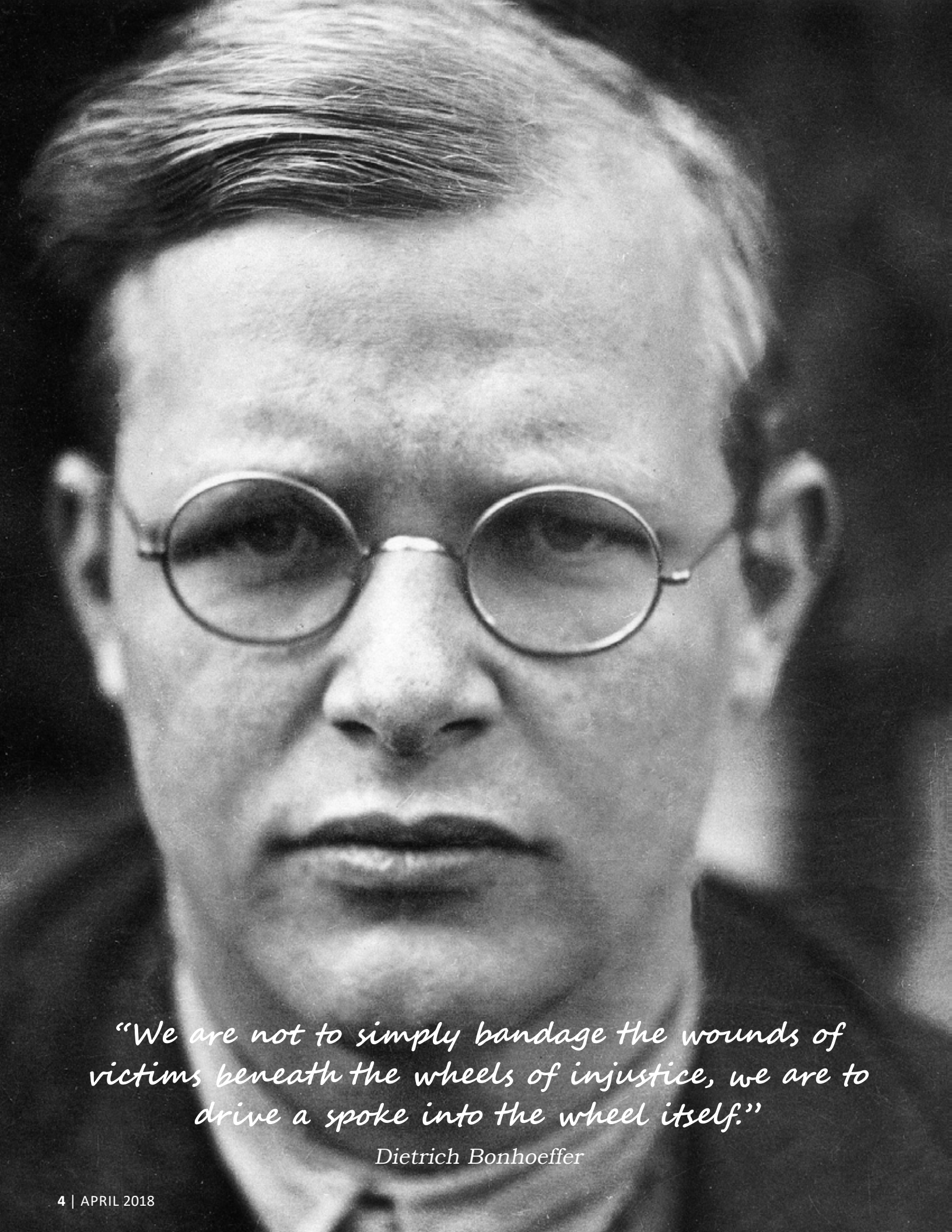
SEPTEMBER 2018

#### WCMS ANNUAL MEETING

DECEMBER 2018

[www.WakeDocs.org](http://www.WakeDocs.org)





*"We are not to simply bandage the wounds of victims beneath the wheels of injustice, we are to drive a spoke into the wheel itself."*

*Dietrich Bonhoeffer*

## Dietrich Bonhoeffer—His Legacy of Noble Writing, Justice and Moderation

By Assad Meymandi, MD, PhD, DSc (Hon), DLFAPA\*

Reprint courtesy of Monday Musings, Monday, April 24, 2017, Volume V. No. 17/328

We could not let April to pass without remembering the phenomenal life of theologian Dietrich Bonhoeffer:

Seventy two years ago April 9, 1945, on a gray morning during Easter week, Dietrich Bonhoeffer was hanged. He was 30. Germany was on the verge of total defeat. But Hitler's killing machine was still operating. Bonhoeffer was charged as a traitor to Hitler and to the Nazi regime. We are dedicating today's "Monday Musings" to honor the memory of this outstanding scholar, theologian, Lutheran pastor and writer. Bonhoeffer was the son of a well to do and prominent German neurologist, professor of neurology and psychiatry at the University of Berlin and the director of the psychiatric clinic at Charité Hospital in Berlin, Dr. Karl Bonhoeffer. Dietrich, with his twin sister, were the fifth and sixth of eight children. His mother, Paula von Hase, was a daughter of Klara von Hase, a Countess by marriage

who had been a pupil of Clara Schumann and Franz Liszt Paula was a college graduate and home-schooled the children. The family was full of classical musicians and music advocates. He was in America in 1930, and later pastored miners and common people in Barcelona as a pastor and not academic theologian. He was interested in ecumenism. He concentrated on removing and neutralizing Hitler and his despotic regime.

Dietrich was an exceptional pianist, and his parents thought he might pursue a music career. He was also athletic and played championship tennis and chess. He was expected to follow his father into neurology and psychiatry, but he surprised and dismayed his parents when he decided by age of fourteen to become a theologian and later a pastor. When his older brother told him not to waste his life in such a "poor, feeble, boring, petty, bourgeois institution as the Church", 14-year-old

Dietrich replied: "If what you say is true, I shall reform it!" What we learn from his later life, he was a martyr, too. Just like Socrates who had a chance to escape the prison where he was awaiting death sentence on charges of corrupting the youth of Athens, Dietrich, too, had a chance to accept the help of the World Council of Churches and flee to US. But he did not. He waited his trial, spending two years in jail before his execution. During his time in jail, he wrote a series of articles and treatises about human rights and humanities that approach Socratic dialogues in their eloquence and Plato's Republic in the beauty of poetry and linguistic supremacy. From prison, he also wrote love letters to his twin sister. The collection of these letters and the ones written to other members of his family and friends provide superb reading to understand the potential strength of conscience and

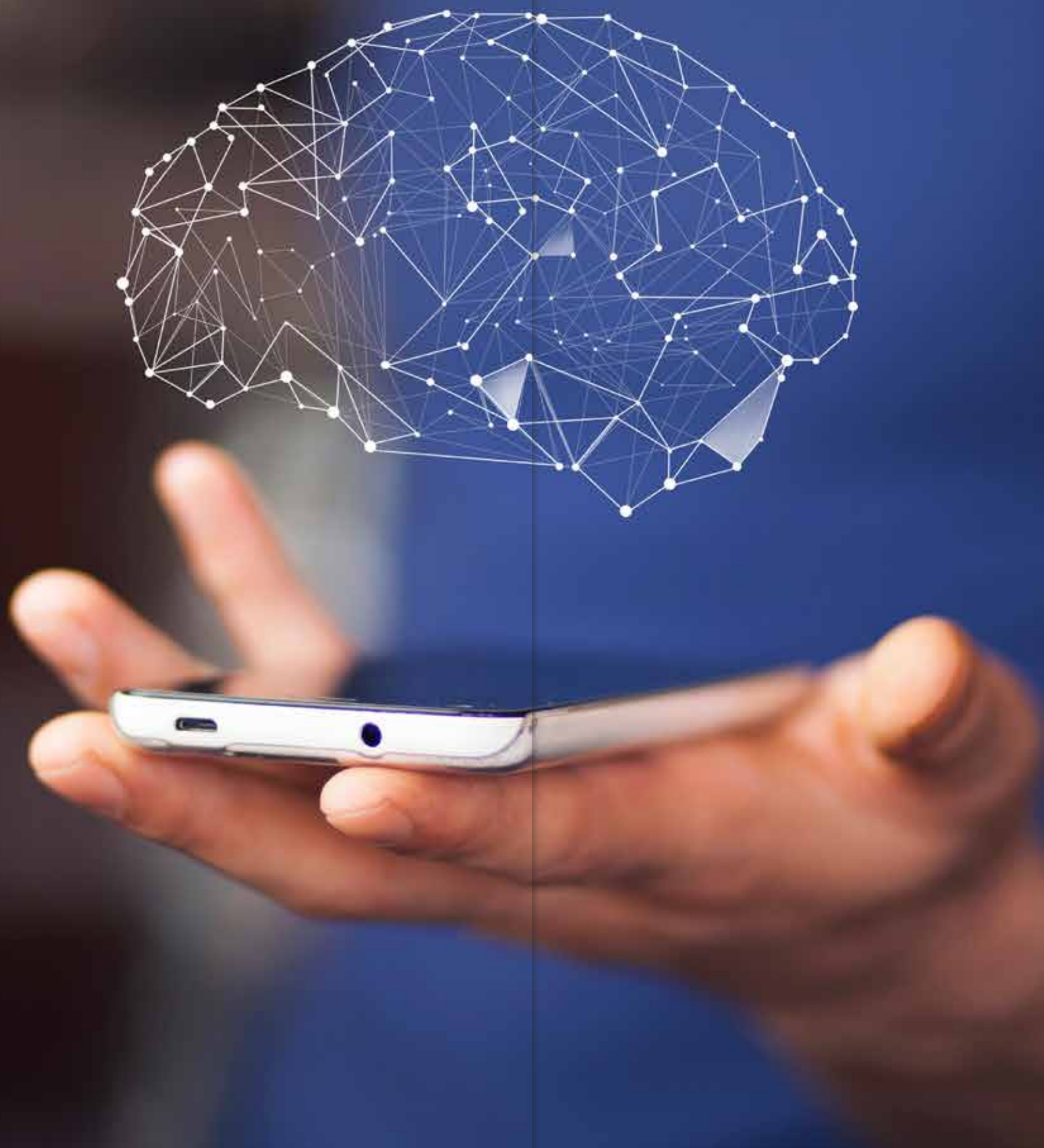
[CONTINUED ON PAGE 13]



Much of the late 20th and early 21st centuries continues our evolution into an era of built in obsolescence. Lately this trend is accelerating as we moved from cars, TVs, radios and appliances and into the realm of sophisticated electronics and technologies. The computer technology revolution birthed not only texting, tweets, Instagram etc., but also changed how we conceptualize, manufacture, 3-D printing, virtual reality and time. These new technologies also contributed to a brave new world of rapid upgrades for these new creations at a pace that leaves many luddites like myself in a constant state of angst. By the “challenged” develop a rudimentary mastery of a technology, it changes.

The pace of change in the neurosciences is also accelerating and at the same time, both diverging into more complex data sets, as well as converging into finer grained analyses of molecular function and neurophysiology. In this sense the era of gradualism interspersed with major new findings is giving way to an era of rapid fire saltation. For example, in the span of twenty years the dominant conceptual model of neurogenesis proposed that neurogenesis ceased during adulthood. Later we learned that a contrary lesson, that neurogenesis persisted in the olfactory and dentate nucleus (hippocampus) throughout a large chunk most of the life cycle. Two weeks ago, a new article in *Nature* challenged this idea on two accounts- there was no clear cut evidence that neurogenesis that although variable did not persist beyond late childhood. The authors proposed several hypotheses: the earlier mouse models of ongoing neurogenesis may not apply to human development; if it does, then we are either unable to detect these pluripotent neurons, that human brain development described a more extended role for glial cells

[CONTINUED ON PAGE 12]



# Evidence Based Medicine—the Past, Present & Future

*By Jarrett Barnhill, MD, DLAFAPA, FAACAP*





## Wake County **Medical** Society welcomes our newest members

Candra E. Rowell, MD  
Francine J. Lapiche, PA  
Erica A. Burdo, PA-C  
Ryan K. F. Brown, MD  
Susan O. Holley, MD  
Kevin O. Herman, MD  
Jeffrey W. Hawk, MD  
Syed A. R. Rizvi, MD  
Erin E. Sukhu, MD  
Emily L. Ross, MD  
Chelsea G. Lefebvre, MD  
Laura M. Gardner, MD  
Brian V. O'Neal, MD  
Edward M. Austin, MD



**wcms**

*military interest group*

## Come Join Us!

Wake County Medical Society  
Military Interest Group

For WCMS members who have prior military experience



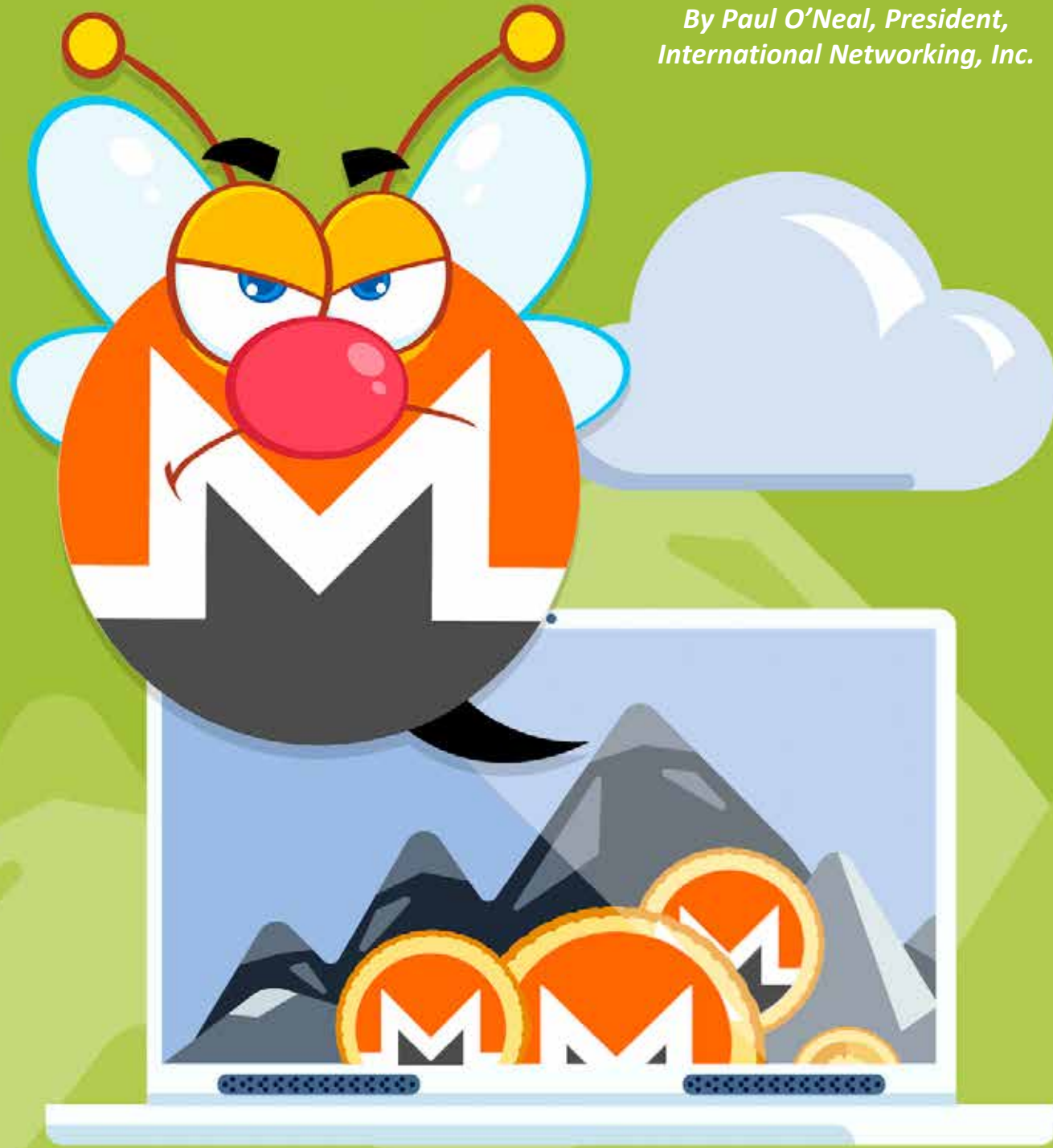
For time and location send an email with contact info & branch of service to:  
dkholmesENT@aol.com  
Douglas K. Holmes, MD, FACS, Colonel (ret), USAFR, MC  
ENT & Audiology Associates PLLC  
3820 Ed Drive • Raleigh, NC 27612 • 919-782-9003





# COINHIVE MALWARE

By Paul O'Neal, President,  
International Networking, Inc.



# COINHIVE

is a cryptocurrency mining service that relies on a small portion of computer code designed to be installed on websites.

This sneaky code uses some or all of the devices processing and/or battery power of any browser or rouge application that visits the website in question, enlisting the machine to mine bits of Monero Cryptocurrency. Monero differs from Bitcoin as its transactions are virtually untraceable, and there is no way for an outsider to track Monero transactions between two parties. Making this an especially appealing choice for cybercriminals.

**This is how it works.** Coinhive released its mining code last summer, **pitching it as a way for website owners to earn an income without running intrusive or annoying advertisements.**

**What does Coinhive get out of all this?** Coinhive keeps 30 percent of whatever amount of Monero cryptocurrency that is mined using its code, whether or not a website owner has given consent to run it. The code is tied to a special cryptographic key that identifies which user account is to receive the other 70 percent.

This sounds good...right? **But this is why it's bad.** Much like a malware infection by a malicious bot or Trojan, Coinhive's code frequently locks up a user's browser and drains the devices' battery as it continues to mine Monero for as long as a visitor is browsing the website. **And if that weren't enough.** Coinhive's code has emerged as the top malware threat tracked by multiple security firms. Much of time the code is installed on hacked websites — without the

owner's knowledge or permission. And for those who have given consent to run Coinhive it CAN NOT be deleted by the user; if you choose to terminate the key, it just terminates the user on that platform, it doesn't stop the malicious

JavaScript from running. And once you invalidate a key, Coinhive keeps 100 percent of the cryptocurrency mined by sites tied to your account—from then on you receive nothing.

## How can this affect you?

Some security firms say over 33,000 websites are currently running

Coinhive's JavaScript miner code. It's impossible to say how many of those sites have installed the code intentionally, but hackers have secretly stitched it into some extremely high-profile company websites, such as [The Los Angeles Times](#),

[Blackberry](#), [Politifact](#), and [Showtime](#). And

it has turned up in some unexpected places as well. Coinhive code was found embedded in all web pages served by [WiFi hotspot at Starbucks](#) in Buenos Aires. Coinhive was even found hidden inside of [YouTube advertisements](#) (via Google's DoubleClick platform). And Coinhive has even been found on [Browsealoud](#), a service provided by Texthelp that reads web pages out loud for the visually impaired.

This past week I was at an office and discovered Coinhive was running on infected Android phones (which have proven to be particularly vulnerable.)

**So what can we do to protect our websites and devices?** [Malwarebytes](#) is one product that will block access to Coinhive and offers some of the best protection for your devices. But I can't stress enough — don't be quick to click on something that sounds too good to be true. §

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[Evidence continued from page 6]

(astrocytes and oligodendroglia, myelin producing cells) in neuroplasticity. This data suggest that glial cells outnumber neurons 3-to-1 in some brain areas and substantially outnumber those found in chimpanzee brains (close relative approach). The older concept of critical periods during development may be affected or even regulated by astrocytes (neuroplasticity); oligodendroglia (during phases of rapid myelination, and microglia during developmental bursts of sequential pruning.

What's an older person like myself supposed to do? Is there no balm in Gilead? The poet John Milton wrote "they serve who only stand and wait". During my training and most of my career, this metaphor also applied to glial cells, they were helpers. If the data cited above stand the test of time and challenges, things I held as certain and universal are melting like the wicked witch of the West in the *Wizard of Oz*. We are not in Kansas or *Oz* anymore. We are trying to understand a developing and neuroplastic brain that has more in common with a complex ecosystem like the Amazonian Rain Forest than earlier models would suggest.

So once again, what can we do to not get lost in the rain forest. Do we resign ourselves to living in a world of probability, chaos, and exponential growth in complexity? For some, we turn to the supernatural or intelligent design for succor. Others blithely mention that it took these systems nearly 3.5 billion years to evolve, so aren't we being a tad arrogant to expect explanations after a few hundred years. X-Files disciples, Trekkies and other Sci-Fi zealots may look for extra-terrestrial input. Maybe our angst is sublimated into the surge in Forensic, crime scene investigations and super geniuses who resolve many complex issues in 45 minutes of air time. So back to the old person with all of his fingers and toes filling the holes in the dike. I

"What's an older person like myself supposed to do? Is there no balm in Gilead?"



would like to plead for an alternative to digits plugging dikes. We will explore a more historical approach that has its roots in William James' idea of selective or focused attention that filters all of the chaos into tolerable experiences. Filter like these are also used by computers and even computerized systems for medical records. So we shall steal from these tools to better understand our way of thinking about the world.

In the next few articles we will take a dramatic leap over the world of supportive evidence ("just the facts ma'am") and take a stab at the evolution of ideas- from the specific to a more generalized set of proposals. All of us live in a world where Evidenced Based Medicine is hopefully bringing a sense of order to medical decision-making. Yet like any system of knowledge, EBM has its strengths and weaknesses. EBM is a step towards a new edition of scientific rationalism. In one sense, it has a reworked framework of organizing data and solving problems. We will track down clues and ideas that are far older than our "modern" ideas about the marriage between medicine and science. So buckle up, hold on and the countdown begins. §

[Bonhoeffer continued from page 5]

man's devotion to the truth. And the truth to him was that the Nazi Regime was despotic in need of elimination. He was a participant in the German resistance movement against Nazism and a founding member of the Confessing Church. His involvement in plans by members of the *Abwehr* (the German Military Intelligence Office) to assassinate Adolf Hitler resulted in his arrest in April 1943 and his subsequent execution by hanging in April 1945, 23 days before the Nazis' surrender. However, recent research now challenges the assumption that he was directly involved in the assassination attempt. His view of Christianity's role in the secular world is well-known. He did not advocate theocracy, but strongly suggested that humanity ought to be governed by laws that are fair, righteous and moral. As a matter of fact, the last thing he did before approaching the gallows, he was reading from his pocket edition of Plutarch, and was quoting from Bible. Faithful readers of this space recall that we reviewed Plutarch book "Moralia". Dietrich Bonhoeffer was reading passages from that book before his execution. Bonhoeffer has written 25 books all worth reading and re-reading. From the collection, I find myself going back to two volumes, *Act and Being*. Like any classic literature, Bonhoeffer's writings have a theme, are written with elevated and noble language, and change the lives of the readers. His pen continues to speak to us today. §

*\*The writer is Adjunct Professor of Psychiatry, University of North Carolina School of Medicine at Chapel Hill, Distinguished Life fellow American Psychiatric Association, and Founding Editor and Editor-in-Chief, Wake County Physician Magazine(1995-2012). He received Raleigh Medal of Art in 2001, inducted to Raleigh Hall of Fame 2013, elected Lifetime Trustee, North Carolina Symphony in 2015, and 2016 recipient of NC Award, Fine Arts.*

**Wake County Physician Magazine (WCPM)** is a publication for and by the members of the Wake County Medical Society. WCPM is a quarterly publication and is digitally published January, April, July, and October.

All submissions including ads, bio's, photo's and camera ready art work for the WCPM should be directed to:

Tina Frost  
Graphic Editor WCPM  
tina@tinafrost.com 919.671.3963

#### **Photographs or illustrations:**

Submit as high resolution 5" x 7" or 8" x 10" glossy prints or a digital JPEG or TIF file at 300 DPI no larger than 2" x 3" unless the artwork is for the cover. Please include names of individuals or subject matter for each image submitted.

#### **Contributing author bio's and photo requirements:**

Submit a recent 3" x 5" or 5" x 7" black and white or color photo (snapshots are suitable) along with your submission for publication or a digital JPEG or TIF file at 300 DPI no larger than 2" x 3". All photos will be returned to the author. Include a brief bio along with your practice name, specialty, special honors or any positions on boards, etc. Please limit the length of your bio to 3 or 4 lines.

#### **Ad Rates and Specifications:**

Full Page \$800  
1/2 Page \$400  
1/4 Page \$200



# WAKE COUNTY MEDICAL SOCIETY

Become a Member of Wake County Medical Society and help support the indigent care and community service programs of the Society.

## CURRENT PROGRAMS

**Project Access** - A physician-led volunteer medical specialty service program for the poor, uninsured men, women, and children of Wake County.

**Community Care of Wake and Johnston Counties CCWJC** has created private and public partnerships to improve performance with disease management initiatives such as asthma and diabetes for ACCESS Medicaid recipients.

**CapitalCare Collaborative** - The CCC program is a membership of safety net providers working corroboratively to develop initiatives to improve the health of the region's medically underserved such as asthma and diabetes for Medicaid and Medicare recipients.

## WHY JOIN

Membership in the Wake County Medical Society is one of the most important and effective ways for physicians, collectively, to be part of the solution to our many health care challenges.

A strong, vibrant Society will always have the ear of legislators because they respect the fact that doctors are uniquely qualified to help form health policies that work as intended.

It's heartening to know the vast majority of Wake County physicians, more than 700 to date, have chosen to become members of the Wake County Medical Society.

## HOW TO JOIN

To become a member of the Wake County Medical Society contact Paul Harrison at [pharrison@wakedocs.org](mailto:pharrison@wakedocs.org) or by phone at 919.792.3644

A portion of your dues supports to the volunteer and service programs of WCMS. Membership is also available for PA's. There is even an opportunity for your spouse to get involved by joining the Wake County Medical Society Alliance.

## WCMS MISSION

To serve and represent the interests of our physicians; to promote the health of all people in Wake County; and to uphold the highest ethical practice of medicine.

## BENEFITS OF MEMBERSHIP

**Service Programs** - The spirit of volunteerism is strong in Wake County. Hundreds of local physicians volunteer to help our indigent. The Society coordinates several programs that allow low income individuals access to volunteer doctors and to special case management services for children with diabetes, sickle cell anemia or asthma.

**Publications** - Members receive the peer-reviewed The Wake County Physician Magazine four times a year, and we keep you informed regularly via pertinent emails. The magazine focuses on local health care issues in Wake County, the Wake County Medical Society and the WCMS Alliance, a companion organization composed of physician spouses and significant others.

**Socializing with your physician colleagues** - Many physicians feel too busy to do anything except work long hours caring for patients. But, the WCMS provides an opportunity for physicians to nourish relationships through social interaction with one another at our dinner meetings featuring prominent speakers and at other events.

Finally, joining the WCMS is plain and simple the right thing to do - Physicians and the community benefit from our membership and our leadership in local affairs.

The Wake County Medical Society (WCMS) is a 501 (c) 6 nonprofit organization that serves the licensed physicians and physician assistants of Wake County. Chartered in 1903 by the North Carolina Medical Society.

## ENJOY THE REWARDS OF BEING A MEMBER

# JOIN TODAY!

