N.C.O.T.S.

**Next Meeting:** 

Sunday, March 10<sup>th</sup> 1 pm – 3:30





# Monthly Newsletter

# **March Topics:**



MARCH AGENDA



5 WAYS AI AFFECTS ORGAN TRANSPLANTS



LAWS ENACTED & LEGISLATION BEING CONSIDERED

"Hope is being able to see the light despite the darkness."
- Desmond Tutu



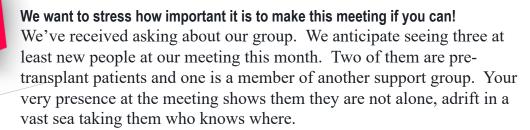
# Sunday, March 10th

**IMPORTAN** 



- Welcome
- Introductions
- Discussion of NY Times Article
- ❖ AB2504: UNOS Under Pressure
- Social Media and Our Presence
- Open Discussion
- Member Story
- Adjournment

### **NEXT MEETING: SUNDAY APRIL**



Together, we can demonstrate the depth and breadth of our organ transplant knowledge and experience. **This is a big dea!** We can provide help, encouragement and understanding, particularly to those facing transplant. We can give them a better sense of the process and more importantly, see how our transplant improved our lives. As a group, we can make a difference in their lives and provide great comfort. Sometimes just seeing people actively participating in discussions is enough to give encouragement and hope. See you there!!!



2024 Meeting Dates		
January 8 <sup>th</sup>	July 14 <sup>th</sup>	
February 11 <sup>th</sup>	August 11 <sup>th</sup>	
March 10 <sup>th</sup>	September 8 <sup>th</sup>	
April14 <sup>th</sup>	October 6 <sup>th</sup>	
May 12 <sup>th</sup>	November 10 <sup>th</sup>	
June 9 <sup>th</sup>	December 8 <sup>th</sup>	



# **Five Ways AI Affects Organ Transplants**

The expected impact of artificial intelligence is yet to be realized in the field of organ transplantation. There have been many successes, to be sure, just as there have been many failures, but experts say much more is to come. For instance, on October 2023 Mayo Clinic surgeons performed a first robotic-assisted kidney transplant in Minnesota. Other organizations are focusing on developing minimal incisions and less obtrusive techniques in all organ transplants going forward, helping reduce post-transplant recovery problems. Below are five ways artificial intelligence is affecting various organ transplant issues:

- 1. Detection/Prevention of Organ Failure Earlier. Doctors are right now using AI to help integrate many other tools, such as scans and labs, into a model that provides a fuller picture of the patient. Dr. Rohan M. Goswami at the Mayo Clinic in Florida says, "they strive to discover ways to help patients recover on their own and have better quality of life... His research utilizes AI to predict how certain medications and early use of some equipment prevents kidney failure and pulmonary hypertension, illustrated in a 2023 abstract in The Journal of Heart and Lung Transplantation.
- 2. Improve Organ Donor and Recipient Matching. AI is already improving the complex organ matching process by helping determine which organs will result in successful transplants. A recent Mayo Clinic study published in Clinical Transplantation in 2022 demonstrates how an AI-based scoring system can analyze transplanted kidney biopsies to determine inflammation levels, a key indicator of a transplanted kidney's health.
- 3. Increase Organs Available for Transplant: AI can help determine which organs would benefit from perfusion systems and which are unsuitable. Perfusion systems, along with other new technologies have increased the number of organs available for transplant. These systems allow organs to survive outside the body and retain viability outside the body longer. Dr. Goswami (above) and colleagues published a study on the application of this new technology to improve organ use rates in a 2022 issue of the International Journal of Scientific Research.
- **4. Prevent Organ Rejection:** AI shows promise for identifying patients at highest risk of organ rejection. Mayo Clinic authors published a study in a 2023 issue of the European Heart Journal that held promise for prediction of low-grade rejection risk, potentially without a biopsy, for patients with heart transplants.
- **5. Improve Post-transplant Care:** Soon artificial intelligence will be able to determine how a patient's body reacts to immunosuppressants and guide medication adjustments to administer only the minimum necessary dose. A 2022 article in The Journal of Heart and Lung Transplantation discusses the role of AI electrocardiography as a predictor of high and at-risk patients post-heart transplant.

#### Al Sources for Your Review:

- <u>Artificial intelligence: Present and Future Potential for Solid Organ Transplantation</u>: Peloso A, Moeckli B, Delaune V, Oldani G, Andres A, Compagnon P. Transpl. Int. 2022;35:10640.
- Jang J, et al. Merging Advance Technology to Improve Outcomes in Heart Transplantation. International Journal of Scientific Research: 2022;11:26.
- Al Advances in Transplant Pathology: MA Rahman; I Yilmaz, ST Albadri, F. Salem... Bio engineering, 2023
- <u>Designing Futuristic Telemedicine Using Artificial intelligence and Robotics in the COVID-19 Era:</u> Bhaskar S, Bradley S, Sakhamuri S,



## Laws Enacted and Being Considered

- **HR 4362:** Saving Organs One Flight at a Time, introduced in House on 06/23/2023. This bill requires air carriers to transport human organs for transplant above wing (i.e., in the cabin of an aircraft). Among other things, the regulations must include consideration for air control outages, a protocol for a person to accompany organs and a standardized process for commercial air carriers to accept, handle, and manage organs in transit.
- **HR 2544:** Became public law on 09-22-2023. Securing the US Organ Procurement and Transplantation Network Act Introduced 4-10-2023; -- Allows for competition in the awarding of multiple grants, contracts, or cooperative agreements to operate the Organ Procurement and Transplantation Network.
- **HR 4343**: Amending the National Organ Transplantation Act (NOTA) Introduced on 06-23-2023 by Doris Matsui (D) CA; Clarifies programs that honor and promote organ transplantation. Provides incentives to encourage donation, calls for reimbursing certain costs associated with organ transplantation; intended to increase organ donation referred to Subcommittee on Health.
- **S1384 Living Donor Protection Act:** Prohibits certain insurance carriers from discriminating against living organ donors and provides other protections, allows use of FMLA time away from work to recover from organ donation, prevents insurance companies from denying or limiting coverage for organ donation or from charging higher premiums; directs HHS to encourage organ donation.
- Public Law 116-260, Part 1; December 2020 Consolidated Appropriations Act of 2021, calls for CMS to pay all immuno-suppressive drug medication costs for a recipient as needed due to an organ transplant. In the past such payments ended after six months

#### California AB 2504

We should be aware of California Assembly Bill 2504 (AB2504, introduced by Ash Kalra, San Jose). This bill appears to support legislation proposed by S 1384, above. It is called the 'Living Organ Donor Reimbursement Act." There are many financial reasons why people are reluctant to volunteer to be living donors. Insurance companies and organ transplant hospitals have done lots to help ease the financial strains live organ donation imposes on living donors, but many significant expenses still have to be dealt with. These costs are sizable stumbling blocks to volunteering to be a live organ donor. That's where AB 2504 comes in. The bill authorizes living organ donors to apply to the department of Health Care Services for reimbursement of qualified donation expenses that were not, or will not, otherwise be reimbursed, including travel and lodging expenses, lost wages, childcare costs, copayments and deductibles for prescription and over-the-counter medications needed as a result of the donation. The bill would limit the total reimbursement costs awarded to each living organ donor to \$10,000 per organ donation. Despite the fact organ transplants are increasing every year during at least the past decade and recognizing 2022 saw UNOS organ transplants exceed the one million organ mark, there is little disagreement that too many people are dying in this country because they are not getting that organ transplant they so desperately need. This bill is the first such law being considered in this country and since living organ donation is one area where we could see improving numbers fairly quickly perhaps our group can discuss this at our next meeting and in the future to see if we would like to show our support. The Bill was introduced in 2022 by Assemblyman Ash Kalra of San Jose. It appears to be tabled in Committee, awaiting a hearing.

2024 Leadership Team		
Role	Name	eMail
President	Jim Deyo	jdeyo@att.net
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Secretary	TBD	
Treasurer	TBD	
Newsletter	* Bob Bilyeu	Bob Bilyeu@yahoo.com 916-675-2721



Editor's Note: If you have topics you'd like us to explore in the monthly newsletter, or if you find value in keeping a newsletter going, let Bob Bilyeu know.

Check Out Our NEW Website! <a href="https://norcaltransplantsupport.org">https://norcaltransplantsupport.org</a>

## Let us Know What you Think!

We're excited about what the website team has created! It goes a long way toward telling our tale. Please take the time to go over what was designed by our team of volunteers:

Jan Escamilla, Eileen Chandler, Renee and David Hawkyard, Scott Thompson, Jim Deyo, Spencer Baker, Sandy and a few others.

# **Important Links**



- American Liver Foundation
- Donate Life California
- Sierra Donor Services
- > UNOS

