American Heart Association.
Basic Cardiovascular Sciences

Chat Discussion
Tuesday, July 28, 2020

Concurrent Session 3A: Molecular Predictors and Markers of Heart Failure Progression

name	message
Joe Trusso	Welcome! Thank you for joining us. You should be hearing music play as we wait for the session to begin. If you do not, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Sakthivel Sadayappan	#BCVS20, you did it. Congratulations!!! We now have 1038 registrations!! Thank you all.
Jil Tardiff	(thumbsup)
Mohammad Alkhalaf	(hearts)
Kristine Deleonpennell	Good morning, I (Dr. Kristine Y. DeLeon-Pennell) am your moderator for this session. Please remember there will be a 15 min Q&A session at the end. Thank you for joining us.
Ying Ge	Excellent! Congrats Sakthi, Jill and Loren! Good morning everyone!
Venkatesh Sundararajan	Great going!! 1038 registrations.....
Rajasekaran NamakkalSoorappan	1038...? That is great!
David Barefield	Congrats Sakthi, Jil, and Loren, great work!
Loren Wold	Thank you all for attending! 1038 registrants....we couldn't have done it without your support.
Farid Moussaviharami	Fantastic achievement! Great job by the organizers!
Sakthivel Sadayappan	Ying, Look forward to seeing your presentation!!
Ying Ge	Nice to "meet" you Kristine! Thanks for moderating this session!
Qutuba Karwi	This is awesome news! Congratulations! (thumbsup)
Jane Freedman	Congratulations to the organizers!
Ying Ge	(thumbsup)(thumbsup)(thumbsup)
Guo Huang	Wonderful news! Congrats Sakthi, Jil, and Loren!
Sakthivel Sadayappan	(thumbsup)

Xiongwen Chen	Congratulations to the organizers, Sakthi, Jil and Loren! It is a wonderful meeting!
Rajarajan AmirthalingamThanda	Great Achievement, Congratulations to the organizers!
Farid Moussaviharami	This was a great talk. p53 affects many pathways. Do you know what are the downstream targets?
Jil Tardiff	Here we go YIng!
Jiang Chang	Always exciting to hear your talk! Congrat.
Venkatesh Sundararajan	Dr. Nomura, fantastic work!!! Do you see any potential mitochondrial markers in your single-cell analysis?
Ying Ge	Thank you Jill, Sakthi and Loren for the kind invitation!
Yike Zhu	Thanks for the nice talk Dr Nomura! I wonder what is the major difference between the hypertrophied and adaptive CM sub-populations in TAC model? And which sub population does the Myh7+ CMs belong to?
Ying Ge	Nice to see you JC!
Seitaro Nomura	I have looked at the mitochondrial marker genes using in situ hybridization and found the similar expression pattern with scRNA-seq.
Seitaro Nomura	Thank you! Dr. Jiang Chang!
Venkatesh Sundararajan	Thank you, Dr. Nomura
Jil Tardiff	So, basically cTnI is the devil. Always knew this.
Ying Ge	yes!
Farid Moussaviharami	Great explanation of the methods! So powerful!
Seitaro Nomura	Myh7+ CMs are a part of failing type cardiomyocytes.
Joseph Wu	Great talk so far Ying, and thank you for providing background info of MS/MS
Ying Ge	Thank you!
Farid Moussaviharami	I am so sorry that due to the pandemic your visit to UW was canceled Dr. Ge.
Ying Ge	Hope to visit the other "UW" next year! :-)
Seitaro Nomura	single-cardiomyocytes RNA-seq of p53 knockout mice revealed a variety of down-stream target genes including Cdkn1a. We are now investigating what the most important factors are.
Sakthivel Sadayappan	Kristine Deleon-Pennell, Thank you for moderating this session!!
Guo Huang	Nice talk, Seitaro!
Seitaro Nomura	Thank you!
Yike Zhu	Thank you Dr Nomura!

Yajing Wang	Ying, nice to 'see' you here, I am wondering, is it possible just test out all the phosp sites in a full length protein in one run, not need to build truncted protein to test different sites?
Rong Tian	very cool, Ying. Impressive
Rajarajan AmirthalingamThanda	Dr. Nomura, Exciting talk, Congratulations
Sakthivel Sadayappan	Seitaro Nomura, Congratulations!
Sakthivel Sadayappan	It is always MYBPC3..
Seitaro Nomura	Thank you so much!
Ying Ge	Yes, you can analyze the full length proteins to test out all the detectable phosphorylation cites without truncation.
Xiongwen Chen	Dr. Nomura, very inspiring talk!
Sakthivel Sadayappan	Nice.. what about other modifications?
Yajing Wang	Ying, thank you!
Ying Ge	Thank you Rong!
Venkatesh Sundararajan	Dr. Ying, Excellent talk and information on Top-down proteomics. I am wondering, Is it possible that PTMs modifications could be introduced or lost during the extraction process of proteins from the tissues, which involves strong detergents? If so, how do you address this?
Sakthivel Sadayappan	Excellent collaborators!!
Kishore Wary	I find this virtual meeting/presentation very effective. The chat function is a bonus. A big HIGH-FIVE to all the organizers - you really put a lot of work into this meeting. including Sakhti and Dr. Joseph. Wu
Ying Ge	Thank you Joe and everyone for all the kind support!
Kishore Wary	The voice/audio is lost
Amadeus Zhu	Try refreshing your page? It still works for me
Kishore Wary	ok, got this
Kishore Wary	working
Farid Moussaviharami	Dr. Ge, is it possible to use the top down approach using sections and scanning to preserve spatial information?
Ying Ge	yes so nice to have the chat function! also we can switch rooms so quickly and joining two sessions simultaneously :-)
Xiongwen Chen	@Ying Ge. Nice talk. Can you pin down the sequence of the phosphorylation sites and deduce what kinds of kinases are phosphorylating the protein?
Jil Tardiff	Ying - these are all late stage HCM samples , myectomy, right?
Wei Guo	excellent talk Ying, very powerful tool for proteoforms
Guochang Fan	@Ying: excellent work. Congrats.
Ying Ge	Yes you can use top-down proteomics to look at the tissues from different sections of the heart.

Venkatesh Sundararajan	Dr. Ying, is it possible to identify the multiple PTMs that are present together in the same peptide sequence?
Ying Ge	Jill, yes, the HCM samples are from septal myocetomy surgeries (late-stage). impossible to get early-stage samples as you know ...
Xiongwen Chen	@Ying @Venkatesh Sundararajan That is also my question.
Ying Ge	Xiongwen, yes, you can pin down the phosphorylation sites. But to identify which kinase is phosphorylation site, it needs a more sophisticated method incorporating both in vitro kinase assay and in vivo assay. i can send you papers later
Kristine Deleonpennell	i am trying to record all questions that have and have not been answered. I will post these during the 15 min Q&A time
Xiongwen Chen	It would be great to find the "Combinations" of phosphorylation when a full-length protein is used but we may need to get down to single molecule level.
Xiongwen Chen	@Ying Thanks.
Jil Tardiff	Just checking, the early stage is where animal models come in. Just hard to entangle these pathways/PTMs mechanistically at the end stage. Where we all struggle.
Ying Ge	Venkatesh, yes you can identify multiple PTMs together with mutations and splicing isoforms in the same proteins. It is easier for smaller size proteins (<50 kDa). The mass spec analysis for large proteins (>100 kDa) is still very challenging.
Jil Tardiff	AH - nice approach there - looking forward to that paper for sure.
Ying Ge	Good suggestion Jill! Love to analyze the HCM animal model! we now have the methods ready to go!
Kishore Wary	A powerful presentation by Dr. Ying Ge. Enjoyed.
Joseph Wu	Great talk Ying!
Amadeus Zhu	What a powerful technique! Great talk
Farid Moussaviharami	Outstanding talk!
Grace Muller	That was a great talk. Thank you Dr. Ge!
Ying Ge	Thank you Kishore and Joe! all all!
Brett Colson	Excellent talk, Ying!
Guo Huang	Nice talk, Ying! Powerful mass spec!
Elaheh Karbassi	Great talk!
Ying Ge	Thank you all for attending!
Mebratu Gebrie	Great recommendation
Xuejun Wang	Enjoy your talk, Ying.
Jil Tardiff	Fantastic talk - looking forward to discussing with my group.
Loren Wold	Awesome talk Ying, great "seeing" you!
Hanqing Zhao	Nice talk. Thank you Dr. Ge!

Rachelle Crosbiewatson	thank you for the super talk!
Ying Ge	great! happy to discuss more during the Q/A
Jun Feng	Great work, great talk, Dr. Ying
Liming Pei	Nice talk, Ying.
Venkatesh Sundararajan	@ Dr. Ying, thank you for answering and excellent infromation on Top-down proteomics.
Jil Tardiff	And I'll be in touch, re: mice ;-)
Sakthivel Sadayappan	Congratulations, Ying!! Beautiful work!
Xiongwen Chen	@Ying. Nice work and talk!
Ying Ge	Thank you so much!!!
Madhumita Basu	Great work, Dr. Ying Ge!
Venkatesh Sundararajan	@Dr. Ying, sorry for one more question, In looking for organelle-specific (e.g. mitochondria) proteomic changes, would you advise doing organelle isolation and perform proteomics or whole-cell proteomics and look for organelle-specific changes?
Ying Ge	Thank you everyone for attending! Talk to you more during Q/A!
Ronglih Liao	Great work/talk, Ying and all!
Ying Ge	Venkatesh, yes, it is better to isolate specific organelle that you are interested first before proteomics. The chance of success is higher with a targeted sub-proteome approach rather than the whole proteome. Mass spec has a capacity so cannot detect every protein and usually highly abundant proteins will be detected. I would highly recommend this Circ Res review paper from Jenny's lab https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936251/
Ying Ge	Thank you Ronglih!
Venkatesh Sundararajan	Thank you again, Dr. Ying
Rongxue Wu	Great talk, Ying.
Ying Ge	Thank you Rongxue!
Xiongwen Chen	@Dr. Nishida: Trpc3 and Trpc6 can form heterodimer. Are your results indicateing that Trpc3 homodimer is responsible for the Gpx activation?
Motohiro Nishida	Thank you, Dr. Chen. Yes, we can not observe any positive effect on Gpx activation in TRPC6-KO mice.
Xiongwen Chen	Thank you!
Shuichi Takagahara	Do other PDE4-inhibitors ameliorate DOX-induced atorphy?
Xiongwen Chen	Is NOX2 directly regulated by Ca2+?
Susumu Minamisawa	(preach)
Loren Wold	Excellent talks everyone!

Kristine Deleonpennell	At this time, we have time to ask questions of the speakers. Please add @ to indicate who you are asking the question to.
Xiongwen Chen	(thumbsup)
Farid Moussaviharami	Fantastic session!
Detlef Obal	Well done!
Motohiro Nishida	Thank you, Gahara-kun. We actually checked all PDE4 inhibitors, but failed to identify any postitive compounds except ibudilast.
Joseph Wu	Great talk Motohiro!
Kimberly Ferrero	Great talk!
Guo Huang	Hi Motohiro, thank you for giving such a comprehensive and stimulating talk!
Yiqiang Zhang	Dr. Nomura - Do you see transcriptomic shifting of CMs (and non-CMs) in your "sc" analysis or identifying new types of cells in HF?
Ying Ge	@Sakthi, sorry i missed your question. Yes we can detect other modifications besides phosphorylation. We have so far detected acetylation, methylation for myofilament proteins. we also detected glutathionylation (unpublished) if we do not use very strong reducing agent. Also glycosylation in other proteins. We also detected pamiltoylation simultaneously with phosphorylation for PLN https://www.nature.com/articles/s41592-019-0391-1
Motohiro Nishida	Dr. Chen, No, I do not think that Ca2+ directly increase Nox2 activity. Maybe Ca2+-dependent PKC activation is required for TRPC-mediated Nox2 activation.
Motohiro Nishida	Thank you, Dr. Wu!
Yibin Wang	Ying, Great presentation and congratulations!
Motohiro Nishida	Hi Huang, thank you very much!
Ying Ge	Thank you Yibin!
Yibin Wang	Your Nano-LC/MS platform is so exciting, can you apply that to any specific protein/complex as long as a good antibody is available?
Kristine Deleonpennell	For all the speakers: was the studies performed in all males and have you seen any influences on sex in your analysis
Kristine Deleonpennell	Thank you everyone for the wonderful session. I know the speakers and organizers appreciate all of the wonderful questions and conversations.
Ying Ge	Yibin, yes, you can apply to specific proteins when you affinity purify them first. The mass soc is getting more and more sensitive. But the background proteins will interfere, so an prior enrichment of your protein of interests will help greatly.

Anne Murphy	Great talk Ying and I agree with Jil that TnI is always the devil. Helpful in clinical identification of MIS-C syndrome in children with COVID
Yibin Wang	Great session and wonderful talks! Congrats to all.
Ying Ge	Thank you Kristine for moderating this session and congrats to Seitaro	Motohiro for the great talks! Nice to meet you all!
Ying Ge	Thank you Anne! Troponin is a great biomarker!
Motohiro Nishida	Thanks, Dr. Deleonpennell. We also performed using female mice, and obtained similar results, but Nox2 upregulation level was smaller than male TAC hearts.
Seitaro Nomura	Nice to meet you all!

Concurrent Session 3B: Cardiac Effects of Oxidation and Inflammation

name	message
Ameen Ismahil	Hi everyone and welcome to this session. I am your moderator, Ameen Ismahil from University of Alabama at Birmingham (UAB). We have three excellent talks lined up for you. If you have any question, please post them in the chat and if they are not answer during the session, we will have time at the end for questions. Enjoy the Session!!!
Pilar Alcaide	Hello Ameen. Thanks for moderating!
Ameen Ismahil	Hello
Xuejun Wang	Good morning. Look forward to a wonderful session.
Guochang Fan	Hi, Ameen.
Raj Kishore	hi Pilar, looking forward to excellent talk
Anand Singh	Hello Dr. Ameen.Looking forward for the talks.
Pilar Alcaide	Good to "see: you Raj!
Loren Wold	Looking forward to your talk Pilar!
Raj Kishore	greetings Dr. Wold
John Calvert	Good morning!
Ameen Ismahil	Hello GuoChang
Hind Lal	Hi Ameen-yes..looking forward to the excellent series of talk
Loren Wold	And who else is enjoying this great music? :)
Suresh Verma	Good Morning Pilar. Looking forward to your talk
Rong Tian	Good morning! Look forward to an exciting session!
Joseph Wu	Yes, looking forward to your talk Pilar!
Ameen Ismahil	Hello Anand
Hind Lal	Good Morning to everyone
Sakthivel Sadayappan	#BCVS20, you did it. Congratulations!!! We now have 1038 registrations!! Thank you all..
Rene Packard	Good morning folks!
Pilar Alcaide	Thanks for putting together this session Loren, Jill and Sakthi!
Loren Wold	@Raj Kishore: Miss ya buddy! Hope you are well.
Ameen Ismahil	Hello Hind
Suresh Verma	Good Morning Ameen.
JoanHeller Brown	Can't wait Pilar. Its been a long time since we caught up !
Ronglih Liao	good morning all! look forward another exciting sections today
Konstantinos Drosatos	You rock soccer lady! :) I am sure your talk will be great Pilar!
Ameen Ismahil	Good morning Suresh
Sakthivel Sadayappan	Pilar, Look forward to seeing your energetic and exciting presentation!

Dian Cao	Good morning!
Pilar Alcaide	Thank you all for attending
Onur Kanisicak	(thumbsup)
Walter Koch	Hi everyone - Joan and Ronglih - hope all is well and Pilar - go get em!
Nicole Purcell	Good to see you Pilar
Guochang Fan	No function for Th2 cells in the heart?
Pilar Alcaide	We did not find upregulation of IL4 or GATA3 in the LV at 4 weeks, an indirect readout of Th2, but have not tested the adoptive transfer directly
Guochang Fan	Thank you, Pilar.
Meenakshi Madhur	Is there a role for CD8+T cells?
Jinqi Fan	Hello Dr. Alcaide, How about the ratio of T cells? the proportion? did you find some direct evidence of interaction between cardiac fibroblast and T cells? thank you
Pilar Alcaide	CD8 cells infiltrate the heart in response to TAC, but CD8ko mice seem to have the same pathology as wt
Maria Kontaridis	Hi Pilar! Great talk so far!
Sakthivel Sadayappan	(thumbsup)
Pilar Alcaide	JF: Yes. Nevers et al, JEM 2017 (tcells crosstalk with Cardiac fibroblats)
Meenakshi Madhur	Thanks!
Jinqi Fan	Thank you so much, great job
Pilar Alcaide	Thanks Maria! good to "see " you
JoanHeller Brown	Did you see if myocytes make CXCL9 and 10?
Pilar Alcaide	Hi Joan: We did not by IF. could not test the Cardiomyocytes by FACS in the reporter mice
Rajasekaran NamakkalSoorappan	Dr. Pilar, Very interesting work - I like the Oxidative stress and Inflammation cross-talk....
Pilar Alcaide	ROS data coming up, Raj....;)
Ying Ge	Nice talk Pilar! So glad to "see" all the friends!
Pilar Alcaide	Hi Ying!
Jamie Francisco	Dr. Alcaide, are these INFgamma mediated? Do you think it is initiated by CCR2+ resident macrophages?
Maria Cimini	Hello everyone! Dr. Alcaide, are residente PDGFRa progenitor cells specifically cross-talk with T cells during inflammation?
Pilar Alcaide	JF: correct. IFNgKO T cells do not induce pathology (Nevers et al, JEM 2017)
Pilar Alcaide	MC: We have not checked. interesting point.
Rong Tian	Hi Pilar, great talk! Do you see T cell infiltration in other types of cardiomyopathy, such as HCM or diabetic?

Pilar Alcaide	Hi Rong, we have not checked HCM or diabetic. We have done MI, Chagas (T cruzi infection) and EAM, and they do
Sathyadev Unudurthi	Interesting data Dr. Alcaide...Do Th1 cells themselves secrete CXCL10 in addition to macrophages to maintain the infiltration of Th1 cells? The underlying question being that would deletion of macrophages prevent the initial and continued infiltration of Th1 cells...
Rongxue Wu	Great job, Pilar!
Pilar Alcaide	SU: Yes, they do, but very little compared to myeloid cells, based on our reporter mice data
Rong Tian	Thx, Pilar. Looks like a generalized mechanism
Pilar Alcaide	Rong: the quantity of T cells and specificity seems to be different in the different models
Rajasekaran NamakkalSoorappan	Obvious ROS in response to TAC - does this might trigger a compensatory mechanisms (i.e. priming atnioxidant trasncription) in the TAC mice? Looking for Nrf2, a key transcriptional regulator of antioxidants and some of the inflammatory genes would be interesting in this model! Congratulations!
Konstantinos Drosatos	Hi Pilar. Great presentation! Is this mitochondrial or extramitochondrial ROS?
Pilar Alcaide	Thanks Raj, Interestingly, Temple reduces TCR signaling and activation and IsoLD formation in the heart
Gabriele Schiattarella	Great talk, Pilar (great to see you!). Do you know what is the mechanism(s) by which T-cells can promote fibrosis in TAC heart? In other words, how T-cells modify fibrobalsts behavior?
Pilar Alcaide	hi Costas, we have not identified the ROS source yet. Good point!
Ameen Ismahil	Which subsets of DCs used to load IsoL, cDC1 or cDC2
Rajasekaran NamakkalSoorappan	Tempol*
Pilar Alcaide	Hi Gabrielle, T cells adhere to fibroblasts through specific integrins and induce TGFbeta
Guochang Fan	Excellent work!
Blake Monroe	Is there a difference in CXCL9/10 secretion between fibroblasts and myofibroblasts?
Rene Packard	Kudos Pilar - terrific work!
Asa Gustafsson	Great talk Pilar. Good to "see" you.
Suresh Verma	Really Nice talk talk. Interesting data.
Adam Wende	Hi Pilar, Great to "see" you again. Enjoyed the updates on your work, exciting studies.
Pilar Alcaide	Ameen: BMDC were used in these studies

Loren Wold	Outstanding work to my favorite soccer playing buddy!
Elizabeth Murphy	great talk!
Hind Lal	Dr. Pilar, Nice data, and great presentation, as always.
Sakthivel Sadayappan	Fantastic Talk, Pilar!!
Joseph Wu	Great talk Pilar!
Joseph Wu	Looking forward to your talk next GQ.
Nicole Purcell	Great talk Pilar!
Dominic DelRe	Pilar, beautiful work and great talk!
WingTak Wong	Great talk
Priscila Sato	Hi Pilar! Awesome talk
Ameen Ismahil	Great Talk Pillar!!!!
Sakthivel Sadayappan	GQ, you have a great start!!
Meenakshi Madhur	Great talk!
Aijun Qiao	Great Talk! Dr. Pilar
Jiang Chang	Always enjoy your work. Congrat!
Fuli Xiang	Beautiful work, Pilar! Thank you:)
Ameen Ismahil	If you have any question for Pillar please post
Sakthivel Sadayappan	Thanks Ameen Ismahil for moderating this session!!
Ameen Ismahil	Thanks Sakthi
JoanHeller Brown	Very exciting advances Pilar !
Ameen Ismahil	Please feel free to post any questions
Pilar Alcaide	Thank you all for your kind words, and to Joe, Loren, Jill and Sakthi for their leadership! ilook forward to anwwer questions at the end of this session, and to catch up with BCVS friends soon!!!
Adam Wende	GQ did that differ between men and women?
Sumanth Prabhu	Pilar, wonderful presentation. Look forward to seeing the story grow!
Gangjian Qin	A great question, Adam. We have not done in this study, Will definitely consider in our future studyes.
Adam Wende	Interesting either way. Thank you.
Rongxue Wu	Pilar, it is great to see you and listen to you talk, all the best.
Guochang Fan	GQ: are Myo-miRs transferred to endothelial cells, and affect their function?
Pilar Alcaide	GQ: Are there any specific integrins induced by the myo-MiRs
Rajarajan AmirthalingamThanda	Dr. Pilar, Great talk
Maria Cimini	Hi GQ, nice to "see" you, greetings from Philadelphia. Do the mayo-miRs target also genes involved in differentiation? Like Notch or WNT?
Ronglih Liao	Congrats, Pilar, outstanding work/talk!(thumbsup)

Gangjian Qin	Guochang, yes they do. Recently, using the new cell-specific labeling tech i am talking about at the end of this talk, we are able to find that authentic cardiac miR-208 exist in the lung endothelial cells even at homeostatic state.
Zhaokang Cheng	Gangjian, great talk! Does myo-miRs-induced CXCR4 downregulation also inhibit recruitment of BMSCs to the infarcted myocardium?
Gangjian Qin	Maria, yes, we found that a Notch co-factors may be targeted, but pending validation.
Priscila Sato	Hi Pilar, I have a question: What about HIV patients?
Gangjian Qin	Zhaokang, a great question. CXCR4 antagonists do both, but it seem there is a dose difference. Long and high dose inhibit, while short and low dose enhance cardiac recruitment, from literatures.
Raj Kishore	GQ: great work. Did you evaluate cardiac functions in antagomir treated mice after MI? Does inhibition of MB mobilization affects function?
Zhaokang Cheng	Thank you Gangjian!
Rajasekaran NamakkalSoorappan	Dr. GQ - A lot data and Myo-exosomes novel story...Congratulations!
Rongxue Wu	Interesting finding, GQ. How Exosomes effect endothelial function?
Guo Huang	Beautiful work, GQ! Nice tools to study CM-specific exosomes and miRs.
WingTak Wong	Great talk GQ! A lot of exciting data, just wonder whether these myo-miRs may act on T-cells?
Huabo Su	GQ, nice strategy to purify cardaic-derived exosomes. Interesting story. Congrats!
Gangjian Qin	Raj, we are looking at the functional impact. The role of myo-miRs in cardiac development are well established, they are somewhat reflect more of fetal gene program, but their role in repair is being investigated, so are we.
Fuli Xiang	Awesome work! Thank you Dr Qin!
Ameen Ismahil	Great talk GQ!!!
Rajarajan AmirthalingamThanda	Great Talk Dr. Qin
Loren Wold	Great talk GQ! Great "seeing" you!
Anand Singh	Great talk!!
Sumanth Prabhu	GQ - this is a beautiful study!
Guochang Fan	very useful tool to trace miR. great work/talk. Congrats!
Asa Gustafsson	Great talk GQ!
Hind Lal	Hi GQ, exciting data and excellent presentation.
Xuejun Wang	Enjoyed your talk, GQ.

Joseph Wu	Great talk GQ!
Gangjian Qin	Thank you for your support and comments to better our science, dear colleagues!
Poonam Rao	Great talk.
Rong Tian	great talk! GQ
Ameen Ismahil	Please post your question to GQ in the chat box
Liming Pei	Very nice talk, GQ!
Naresh Kumar	Nice talk GQ!!!!
Sumanth Prabhu	Thank you for great job moderating, Ameen!
Sakthivel Sadayappan	GQ: miR-208 is very interesting! Would you please comment on its regulation under various pathologies such as HCM, HF
Venkatesh Sundararajan	Great work Dr, Qin
Ameen Ismahil	Thanks you Dr. Prabhu
Prabhat Ranjan	Really interesting technique to isolate exosomes of our interest. Great talk..
Suresh Verma	Excellent talk GQ. miR208 is really interesting.
Sakthivel Sadayappan	Dr. Dian Caon, Great start!! Thank you for presenting your work!!
Naresh Kumar	Hello GQ, It was a great talk, What concentration/number of exosome was used for your in-vivo study?
Sumanth Prabhu	Dr. Cao - what is the predominant cell type that exhibits this cGAMP signaling
Gangjian Qin	Sakthi, thank you for the great comments. Given the great miR-208a/b a/b-MHC stories and miR-208/Med13 story. Their roles in CM differentiation and likely CM cell cycle. I expect it serves a great mediator of CMs with systemic response during heart injury.
Gangjian Qin	Naresh, we used 20 ug. The details are in the Nat Comms paper.
Suresh Verma	Hi GQ a naive question. Does miR208 regulated recipient cells proliferation?
Naresh Kumar	Thank you Dr. Qin!!!
Rong Tian	Dr. Cao, very interesting work! Wonder if the wide spread of DNA in cytosol shown in isolated CM is nuclear or mitochondrial origin?
Grace Muller	Dr. Cao, is this permanent occlusion, or I/R?
Pilar Alcaide	Hello Diane: Do you see a similar phenotype in the STING-/-? Is STING dependent on cGAS post MI, or is it activated independently of cGAS post MI? thanks! beautiful work
Dian Cao	yes LAD ligation

Fuli Xiang	Nice talk, Dr Cao. I am wondering if you have observed a increase of rupture in the cGAS ko mice as the danger signal is critical for the initial healing.
Dian Cao	The sting mice is under investigation, so far, they actually look different, but more to come.
Pilar Alcaide	Thanks Dian!
Feng Zhang	Dr. Cao, nice talk! I wonder if whether cGAS and STING express in normal heart?
Gangjian Qin	Suresh, these myo-miRs are involved in the growth and differentiation of myocytes in development (some inhibitory and some promoting). We did find they affect EPC proliferation and identify one myo-miR targets a CDK inhibitor in EPCs, but still are validating this target molecule.
Dian Cao	the distribution of sting alsp appear different among the heart cells. more complicated.
Ameen Ismahil	You can post your question to Dian in the chat box
Venkatesh Sundararajan	Dr. Cao, interesting work, I believe that mtDNA are released into cytosol during stress causing activation of these pathway. is that true in this case?
Jinqi Fan	Great idea
Dian Cao	Thanks you Rong, So far, we see cgas mostly in macrophages. It is not know if unde rstress, myocyte will do the same.
Sumanth Prabhu	Dr. Cao - does the cGAS pathway impact macrophage phagocytosis?
Jamie Francisco	Dr. Cao, are these macs resident or recruited? (CCR2+ or -)?
Jamie Francisco	Also, do the cGAS -/- hearts show increased fibrosis?
Sathyadev Unudurthi	Interesting data Dr.Cao...is cGAS expressed in neutrophils and T-cells?
Pilar Alcaide	cGAS is also highly expressed in endothelial cells. Is it possible that cGAS signaling regulates vacularization during repair?
Dian Cao	Yes, mtDNA can be released into the cytosole as shown by the science paper. It is just now clear how does these cytosolic DNA triger macrophage cGAS activation or there is intrinsic DNA sensing in the myocytes, which will not be surprising. Mt DNA can also be released in macrophages, but seemingly much less in quantity if you compare myocyte mtdna and that in macrophages.
Dian Cao	We have not investigated EC yet, but a very interesting point for sure!
Lorrie Kirshenbaum	Is there a compensatory change in STING in the GAD-/-?

Grace Muller	Right, also wondering what the baseline phenotype is of the cGAS-/- mice?
Xiongwen Chen	@Dian Cao: you said "seemingly much less in quantity if you compare myocyte mtdna and that in macrophages". Is this because there are much more mitochondrial in the myocyte?
Joseph Wu	Great talk Dian!
Dian Cao	Sting is in T cells, not sure about cHAS tho. And it should be in neutrophils but some work published data suggesting DNA-sensing in neutrophils not dependednt on cGAS.
Dian Cao	please pardon my typos.
Dian Cao	Thank you Joseph!
Dian Cao	Xiongwen, you are right!!
Rongxue Wu	I am enjoying your talk, Dian:)
Xiongwen Chen	Thank you, Dr. Cao!
Jinqi Fan	Hello Dr.Cao, great work! the DNA in the macrophage is from necrosis myocyte? thank you
Guochang Fan	@Dian; I missed you early slides. Is the cGAS-KO macrophage-specific KO?
Dian Cao	Grace, at baseline, cGAS-/- mice do not manifest any obvious phenotype, but they are very much susceptible to DNA viral infection.
Sathyadev Unudurthi	Dr.Cao, did you look at the effect cGAS on CCR2 expression?
Brian Orourke	Maybe the TOM20 negative DNA particles are post mitophagized mitochondria - still could be mtDNA
Dian Cao	Its a whole body knockout. macrophage specific ko is work-in-progress.
Venkatesh Sundararajan	Thank you, Dr. Cao, I believe TFAM heterozygous knockout mouse which has 50% less mtDNA content may answer this question.
Adam Wende	Dr. Cao, very interesting what about the cell source versus compartment? For example DNA from CM nuclei versus MP nuclei and/or mito from either?
Dian Cao	Not yet on the CCR2 expression, but interesting point to consider indeed.
Guochang Fan	Thank you, Dian. Congrats on your excellent work!
Pilar Alcaide	STING signaling induces T cell death in T cells- I believe through cGAS, but not in macrophages. It may be the case in cardiac cells and that's why you see the ramakable pehnotype. great work and presentation!
Danish Sayed	Great Talk Dian!
Brian Orourke	Very interesting talk!
Sumanth Prabhu	Very nice presentation. Will be of considerable interest to see phenotype of myeloid specific cGAS KO

Ameen Ismahil	Great Presentation Dian!!
Rong Tian	great talk!
Rene Packard	Exciting work - congrats!
Rushita Bagchi	Great talks!
Zhaokang Cheng	Interesting talk Dian!
Grace Muller	Thanks for an engaging talk!
WingTak Wong	Great talk
Chuanxi Cai	great work!
Ameen Ismahil	Thanks you very much Pilar, GQ and Dian for wonderful presentation!!! Thanks for attending this session!!!
Suresh Verma	very interesting work Dian.
Xiongwen Chen	Great talk, Dian!
Yibin Wang	Great talks!!!
Guochang Fan	Congrats on all speakers!
Larisa Emelyanova	Great talk!

Concurrent Session 4A: Apoptosis, Necrosis and Autophagy in Heart Disease

name	message
Joe Trusso	Welcome! Thank you for joining us. You may be hearing the previous session playing as we wait for this session to begin. If you do not hear or see anything, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Asa Gustafsson	Welcome everyone! I am your moderator for this session and we have 3 exciting presentations lined up. If you have any questions, please post them in the chat for the speakers. Speakers can answer the questions during the presentation but we also have some time after the session for additional questions/discussion.
Elizabeth Murphy	Thanks Asa!
Qutuba Karwi	Looking forward forward for this session! Thanks Asa
Chrishan Ramachandra	Thanks Asa
Matthew Martens	Thanks Asa!
Martin VilaPetroff	Thanks Asa
Loren Wold	Thanks for moderating Asa! Great "seeing" you
Priscila Sato	Hi everybody
Venkatesh Sundararajan	Looking forward to great talks!!!
Sakthivel Sadayappan	Asa, Thank you for moderating this session!!
Joseph Wu	Thank you Asa!
Kishore Wary	Is the CASP procedure similar to cecal ligation puncture model?
Martin VilaPetroff	It is similar but the CASP model in the physiological model of a diffuse peritonitis
Kishore Wary	Ok, thank you
Rongxue Wu	Great talk, Martin. I wonder how long it takes after sepsis operation to expect to see a cardiac dysfunction
Kishore Wary	Does the model allow you to monitor Kf,c, permeability co-efficient?
Martin VilaPetroff	it depends on the size of the canulla. We used size 24 and it take 24hrs
Kishore Wary	Ok, thanks.
Rongxue Wu	Thanks, Martin
Sakthivel Sadayappan	Martin, Great talk and congratulations. Did you check myosin binding protein-C phosphorylation as it is one of the substrates to CaMKII!

Jun Feng	nice talk, CaMKKII phosphorylation and oxidation differs?
Venkatesh Sundararajan	Dr. Martin, great work!! have you tried mitochondrial speciffic /non specific antioxidants
Martin VilaPetroff	No, we did not check PB-C phosphorylation
Kishore Wary	Did you examine neutrophil myeloperoxidase (MPO) activities?
Sathyamangla NagaPrasad	Martin great talk!! Is there relative differences between CAMKII oxidation vs. nitrosylation with sepsis.
Martin VilaPetroff	No we did not look at MPO activity
Kishore Wary	Ok, thanks
Beverly Rothermel	Martin, beutiful talk. Do you know if the ROS activation of CAMKII is calcium - dependent?
Martin VilaPetroff	We could prevent the effect on contractile dysfuncion with the antioxidant tempol so we think it is mostly oxidation ant nitorsylation of CaMKII
Sathyamangla NagaPrasad	Thanks!!
Venkatesh Sundararajan	Thanks, Dr. Martin
Martin VilaPetroff	It need background calcium but the activation is by a rise in ROS
Matthew Martens	Great talk! Have you looked at necrosis vs. apoptosis with pharmacological inhibitors like Nec-1?
Martin VilaPetroff	No, but I think that necrosis also occurs
Man Liu	Have you tested oxidation of RyR?
Martin VilaPetroff	Yes, the serine2814 is phosphorylated in sepsis
JoanHeller Brown	Great talk Martin. Is there any other source of elevated Ca in CASP or do you think all the mito overload is from SR leak?
Man Liu	What I meant is RyR itself can be oxidized by oxidative stress in your animal, not just phosphorylation.
Asa Gustafsson	Thank you Martin - great talk! Good to "see" you again.
Xiongwen Chen	Good to "see" you, Dr. Murphy!
Elizabeth Murphy	good to be "here"
Martin VilaPetroff	we think the most important source is RyR leak for mito Calcium overlaod
Sathyamangla NagaPrasad	Look forward to your talk Tish!!
Rongxue Wu	Hi Martin, Great talk, I wonder if the caMKII-dependent increase is involved in BKBR1 signaling
Paul Brookes	I thought the clinical trials on NHEis (cariporide etc) failed mainly due to neurovascular events, plus they delivered them way too late (24h after PCI).

Rong Tian	this session is on and off on my line, anyone has the same problem?
Sathyamangla NagaPrasad	No!!
Di Lang	Fine here
Venkatesh Sundararajan	No, Dr. Rong
Loren Wold	Great
Joseph Wu	Great talk Martin!
Anne Murphy	Rong, I had to go out of the session, and then reconnect.
Elizabeth Murphy	In the initial trial they were protective in cardiac surgery. They did a later trial and it had neurovascular effects
Loren Wold	Great seeing you Tish! Loving your talk!
Martin VilaPetroff	Man Liu, when we use the 2814A mice that cannot be phosphorylated we prevent contractile dysfunction and apoptosis in spite that RyR oxidation can still occur so we think it mostly RyR2 phosphorylation
Rene Packard	Also had to exit and reconnect to the session
Rong Tian	I am too anxious missing Tish's talk LOL
Elizabeth Murphy	I also had to reconnect!
Man Liu	Thank you Dr. VilaPetroff
Walter Koch	Hey Tish. good to see you!
Anne Murphy	Thank goodness for recorded sessions!
Sakthivel Sadayappan	Tish, Thank you for presenting an exciting work.. Good to see you as well!!
Kenneth Humphries	Does knockout of MCU affect normal activation of calcium-sensitive mito dehydrogenases?
Venkatesh Sundararajan	Great going Dr. Tish!! Good to see you.
Elizabeth Murphy	Depends on the mouse. Knockout in the adult has an effect. We saw very little effect in the germline knockout.
Ying Ge	A great session! Nice to see you Asa and Tish!
Rong Tian	Tish, is there a male and female difference in MCU?
Kenneth Humphries	thanks
Elizabeth Murphy	Rong- we haven't seen any sex differences in the MCU-KO.
Rong Tian	thx, Tish
Sakthivel Sadayappan	Dr. Anne Murphy, Yes..
Alicia Mattiazzi	Does lost of MCU for 1 month alters matabolism and ECC?
Xiongwen Chen	Tish, did you look at the heterozygous mice?
Elizabeth Murphy	Alicia,
Elizabeth Murphy	Alicia-this is data from Molkentin and Elrod's labs and they find altered response to adrenergic stimulation .

Alicia Mattiazzi	Thanks Tish. Great talk!
Elizabeth Murphy	We have not looked at hets.
Xiongwen Chen	Thank you, Tish! Great talk!
Joseph Wu	Great talk Tish!
Thomas Martin	Dr. Murphy, enjoying your talk. Did you see any changes in cyclophilinD acylation in the month-long MCU knockdown group?
Rong Tian	Tish, what mechanism mediates the deacylation?
Loren Wold	Loved your talk Tish!
Sathyamangla NagaPrasad	Very Nice talk Tish!!
Elizabeth Murphy	We only studied the germline MCU-KO--but yes aceylation was increased in the MCU-KO.
Asa Gustafsson	Thanks Tish! Great talk as always.
Kevin Casin	Very interesting talk Tish! Great to "see" you again :)
Elizabeth Murphy	Thanks everyone for listening and for your comments.
Hesham Sadek	Great talk Tish!
Venkatesh Sundararajan	Great talk Dr.Tish!!
Grace Muller	Dr. Murphy, I learned a lot from your presentation. Thank you for a well-balanced and -organized talk!
Sathyamangla NagaPrasad	Does ischemia have a difference between nitrosylation versus acylation!!
Ivor Benjamin	Many thanks for a wonderful talk, Tish.
Elizabeth Murphy	Prasad--great question. We are looking at it now. Hope to have data soon.
Sathyamangla NagaPrasad	Thanks!! great talk!!
Qutuba Karwi	Very nice talk Tish! Really ennoy it! Have you tried to perfused the heart with high levels of fatty acid (that can potentially enhances acylation of CypD) and see what happens to PTP opening/infarct size?
JoanHeller Brown	HI Martin, it looks like my note got lost ? Very nice to see you and hear of your progress. Do you think CASP might do other things to increase cardiomyocyte Ca that lead to mito Ca overload or that it is all via increased SR leak?
Qutuba Karwi	enjoyed*
Priscila Sato	As always amazing talk! Thank you. What happens if L-name is combined to calcium is there an additive effect?
Elizabeth Murphy	Interestingly the aceylation is the same just coming out of the mouse as it is with an hour of perfusion with glucose. We don't lose aceylation during the hour perfusion. We haven't

	tried perfusing with fatty acids to see if we can increase the level.
Willem DeLange	Chrishan- Does the MYBPC3 mutation cause truncation?
Brian Orourke	Interesting talk Tish. There still seems to be a lot to learn about the Goldilocks properties of MCU. We see benefits of viral overexpression of MCU on HF (talk Thurs) but not much effect of MCU KO in neonatal myocytes during I/R (mito Ca still goes up but inhibited by NCLX blocker).
Elizabeth Murphy	We haven't tried L-Names and Ca. A good idea. We'll try it.
Chrishan Ramachandra	Hi William, this mutation is a missense mutation and we have not noticed a truncated product
Qutuba Karwi	Interesting! Nice to see you Tish
Elizabeth Murphy	Brian--I look forward to hearing your talk on Thursday.
Sathyamangla NagaPrasad	Chrishan - is there a difference in the beta-adrenergic coupling in these hypertrophic iPSC
Rong Tian	Brian, look forward to Talk on Thurs
Martin VilaPetroff	Hi Joan, I think my answer is above. however, The casp model in fact has reduced Ca transient mainly due to RyR leak. I think this leak flows into the neighbouring mitochondria ans is the mail source of mito calcium overload
Tariq Altamimi	Interesting talk by Tish. I hope there's a way to re-watch as I unfortunately missed the first part.
Loren Wold	All talks will be available for 90 days "On Demand"
Chrishan Ramachandra	Sathyamangla, we see that the MYH7 line has a more pronounced phenotype, with respect to iso stimulation we see more irregularities in the MYH7 line
Tariq Altamimi	Great! thanks Loren
Sathyamangla NagaPrasad	Thanks
Rachel RothFlach	This is a really interesting seminar, thank you! Do you have any idea how the CM MPO levels compare to neutrophil MPO levels?
Farah Sheikh	@Chrishan- great talk! quick question...what sites are you looking at for phosphorylation for MYBPC..as you know there are multiple sites.. have you looked at compensation from other phospho sites in this setting?
Chrishan Ramachandra	Hi Rachel, CM MPO seems to be much lower than neutrophil MPO
Chrishan Ramachandra	Hi Farah, we only looked at the Ser282 site
Asa Gustafsson	Great talk. Thank you Chrishan!
Chrishan Ramachandra	we are currently looking at the other sites as well

Farah Sheikh	Thanks Chrishan
Detlef Obal	interesting talk
Chrishan Ramachandra	thanks Asa! pleasure to be "here"
Anand Singh	Nice talk..Ramachandra
Julia Napolitano	Thanks for the talk!
Kishore Wary	I like the MPO story
Shyam Bansal	Interesting talk! Great work!
Asa Gustafsson	Thanks to all of the speakers. We will have a few minutes to chat.
Sathyamangla NagaPrasad	Great talk Chrishan!!
Hesham Sadek	Great talk!
Venkatesh Sundararajan	Excellent presentation, Dr. Ram
Rong Tian	enjoyed the talk!
Dominic DelRe	Thanks Asa for moderating a great session!
Willem DeLange	Great Talk, Thanks Chrishan
Ajit Magadum	Enjoyed the talk..
Martin VilaPetroff	Thanks Asa, hope to see you soon in real life!!
Elizabeth Murphy	Thanks Asa and everyone!
Sathyamangla NagaPrasad	Thanks Asa for moderating this Session!!
Asa Gustafsson	Same Martin:=)
Elizabeth Murphy	Thanks to the organizers for putting together the virtual sessions.
Kimberly Ferrero	Great talk! Question -- are circulating MPO levels useful as a predictive biomarker for adverse cardiac events? And do they correlate with MPO levels in CMs?
ChiKeung Lam	Dr. Ramachandra, great talk! Does MPO affect SR calcium protein phosphorylation?
Huabo Su	Thanks Asa for the moderation:)
Sakthivel Sadayappan	Dr. Ramachandran, Excellent presentation and thank you for presenting from Singapore!!
Matthew Martens	Thanks for the great session Asa and organizers!
Chrishan Ramachandra	Hi Kimberly, great question, recent evidence certainly points that way that circulating MPO is associated with adverse outcomes, but this is probably due to inflammatory response as CM MPO is expressed at much lower levels. But this also would be benificial in the context of therapy as you would need a lower dose of MPO inhibition to inhibit CM MPO and avoid possible immune suppression by inhibiting neutrophils

Kimberly Ferrero	Thanks, Dr. Ramachandra! That's exactly where my questions were going -- avoiding off-target immune effects. :)
Chrishan Ramachandra	ChiKeung we haven't looked at the calcium proteins, MPO could have multiple targets so there is a possibility
ChiKeung Lam	Thanks Dr. Ramachandra!
Chrishan Ramachandra	This was a recent paper which showed that myocardium MPO can be detected on scRNA-seq but these were healthy subjects Circulation. 2020 May 14. doi: 10.1161/CIRCULATIONAHA.119.045401.
Rong Tian	I suggest that in the future, leave a few min between talk to chat instead of having it at the end of the session.
Chrishan Ramachandra	Thanks Sakthi, my pleasure to present
Asa Gustafsson	i agree. Excellent idea
Martin VilaPetroff	I agree with Rong Tian

Concurrent Session 4B: Novel Pathogenic Pathways in Cardiac Remodeling: Early vs. Late

name	message
Corey Dubois	Welcome! Thank you for joining us. You should be hearing music play as we wait for the session to begin. If you do not, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Joe Trusso	Welcome! Thank you for joining us. You may be hearing the previous session playing as we wait for this session to begin. If you do not hear or see anything, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
John Calvert	Hi everyone and welcome to this session. I am your moderator, John Calvert from Emory University. We have three excellent talks scheduled for this session. If you have any questions, please post them in the chat.
Loren Wold	Thanks John for moderating!
Sakthivel Sadayappan	Dr. Calvert, Thank you for moderating this exciting session! http://www.surgery.emory.edu/about-us/faculty_directory/faculty_profile_john_calvert.html
Guochang Fan	Thank you, John, for your moderating.
Suresh Verma	Hi John, Looking forward for great session.
Qutuba Karwi	Thanks John!
Sakthivel Sadayappan	Dr. Fan, Look forward to seeing your talk!! Thank you for presenting!
Guochang Fan	@Sakthi, thanks for giving me this opportunity
Joseph Wu	Likewise, looking forward to your talk Guochang.
Guochang Fan	@Loren, @Sakthi: thanks for your strong leadership.
Guochang Fan	@Joe: Thanks for your strong leadership.
John Calvert	What type of phosphorylation did you evaluate? Serine, tyrosine...?
Yasushi Fujio	Thank you, John. Ser phosphorylation.
Fuli Xiang	Hi Dr Fujio, nice to see you:) I am wondering if you have seen any YAP changes in the Moesin signaling.
Guochang Fan	Monensin can inhibit endosomal trafficking. Have you checked membrane receptor levels? @Yasushi
Yike Zhu	Hi Dr Fujio, do you see a difference in cardiomyocyte cell size after EAM?
Yasushi Fujio	Thank you, Fuli. We are now addressing the involvement of YAP.
Jil Tardiff	Really nice job presenting a very complex system.

Yasushi Fujio	Guochang, we have not checked them. Thank you for great suggestion.
Yasushi Fujio	Dear Yike, we have not cheked the difference in cell size.
Motohiro Nishida	(preach)
Guochang Fan	Excellent talk, congrats! @Yasushi
Fuli Xiang	Great Talk! Really enjoyed it. Thank you, Dr Fujio!
Junichi Sadoshima	Great work, Yasushi
John Calvert	Thank you Yasushi. Great talk!
Loren Wold	Exciting talk Yasushi!
Yasushi Fujio	Thank you for your kind attention!
Walter Koch	Ronglih - you are doing well -
Loren Wold	Great "seeing" you Ronglih! Exciting talk!
Farid Moussaviharami	This is such an important topic!
Adam Wende	Very nice job of putting your project in context. Are you also including vaping in your "smoking" group? Or only traditional cigarettes?
Rong Tian	Ronglih, important topic! The slides are cool
Pilar Alcaide	Ronglih, great talk so far and very interesting topic! I bet those mice also have increased inflammation-given the role of stress in autoimmune inflammation!
Ying Ge	So nice to "see" you Ronglih! Beautiful presentation!
Yike Zhu	Thank you Dr Fujio. Nice talk and work!I have two more questions: have you checked the expression of any cardiac progenitor markers in EAM model? And what is the key factor to induce higher cardiomyocyte plasticity at early stage in EAM?
MariaPaola Santini	Hi Dr Fujio, great talk! Are the proliferating cardiomyocytes de-differentiated cardiomyocytes? Are they re-differentiating into mature cardiomyocytes?
Sakthivel Sadayappan	Dr. Ronglih Liao, Thank you for presenting an important and critical study!
Yike Zhu	I got exactly the same question with MariaPaola Santini :)
Jil Tardiff	Creative and thoughtful question and approach, Ronglih (as always). Thought - provoking results
Farid Moussaviharami	@Dr Liao, is there any difference in the blood pressure or heart rate of the different groups of mice in your study?
Anne Murphy	One of the concerns in pediatrics is second hand smoke while they are being exposed to when confined at home during covid
Guochang Fan	A layman question: what is the expression level of Nicotine receptor in cardiomyocytes?

Yasushi Fujio	Dear Yike, previously, we checked the expression of Sca-1 antigen and found that its expression was upregulated. Quite frankly, I have no data concerning the key factor.
Joseph Wu	Great talk Ronglih!
Jil Tardiff	Interesting point, Anne!
Detlef Obal	Great talk, very important study
David Paik	Great talk Ronglih!
Loren Wold	Awesome talk Ronglih! Did you see any male/female differences in echo?
Yasushi Fujio	Dear Maria, yes, you are right.
Guochang Fan	Excellent talk and very interesting topic
Jil Tardiff	Really nice, Ronglih!
Yike Zhu	Thank you Dr Fujio!
Jeffrey Hsu	Terrific talk, Dr. Liao and great job providing the context!
Dominic DelRe	Fantastic talk Ronglih!
Farid Moussaviharami	Fantastic talk Dr. Liao!
Zhaokang Cheng	Ronglih, exciting talk! Does smoking increase expression of cycle inhibitors?
Hind Lal	Dr. Ronglih-impressive presentation of highly applicable findings to public health. Thanks for sharing unpublished data.
Madhumita Basu	Excellent talk, Dr. Liao!
Zhaokang Cheng	"cell cycle inhibitors", sorry for my typo.
Rongxue Wu	Great talk, Rongli
Rong Tian	Ronglih, very innovative!
Chen Gao	Great talk Ronglih!
Ronglih Liao	Thanks to all for your kind words and encouragement. Answer to Adam's question. all data presented is traditional cigarette smoking, the vaping study is ongoing but the progress got denied by COVID lab ock down. Stay tuned!
Jiang Chang	Guochang, always enjoy your work. Congrat!
Yang Xiang	Ronglih, what is behind the Cortisol-driven addition of nicotine/smoke? It this central or peripheral response?
Ronglih Liao	(hearts) Thanks again to all of your kind words and encouragement!
Rushita Bagchi	Excellent talk Dr. Ronglih Liao
Rongxue Wu	interesting finding Dr. Fang, Where TSG101 come from? is it CM specific or other cells as well
Yang Xiang	addiction
Guochang Fan	@Rongxue: Tsg101 is highly expressed in cardiomyocytes.
Rongxue Wu	Thanks! Dr. Fan

Rajasekaran NamakkalSoorappan	Hi Fan Very interesting and new competitor for Keap1 regulates Nrf2 activation in the heart!
Rongxue Wu	When is Tsg101 elevated after IR?
Guochang Fan	Thanks, Raj.
Guochang Fan	Decreased in I/R hearts
Guo Huang	Ronglih, exciting talk!
Rongxue Wu	Yes, it is reduction. I wonder Is the reduction in Tsg101 transient or permanent?
Guochang Fan	Transient reduction @Rongxue
Rongxue Wu	Thanks, when did you see the change earliest after IR?
ChiKeung Lam	Dr. Fan nice talk! Is there substrate specificity on Tsg101-p62?
Guochang Fan	ex vivo, 1h. @Rongxue
Rongxue Wu	Good to know, thanks
Rajasekaran NamakkalSoorappan	Does this (p62-Keap1 complex) result in sustained Nrf2 activity and lead to reductive stress?
Ying Ge	@ Guochang, Great talk! But difficult to see your face -lol :-)
John Calvert	Thank you for a great talk!
Suresh Verma	Nice talk Dr. Fan
John Calvert	Please continue to post questions for all of the speakers
WingTak Wong	Great talks!
Guo Huang	Very nice and in-depth study, Guochang. Congratulations!
Huabo Su	Guochang, well done! How is Tsg101 expression regulated by I/R?
Guochang Fan	Raj: great question. Yes, may be
Luay Boulahouache	Great talks!
Rongxue Wu	Great talk Dr. Fan
Jiang Chang	very mechanistic and complete. Thanks Guochang.
John Calvert	Dr Fan - What downregulates Tgs101 during ischemia?
Zhaokang Cheng	Guo-chang, exciting talk! Does permanent upregulation of Nrf2 in mouse heart cause toxicity?
Xuejun Wang	Enjoyed your talk, Guochang.
Yibin Wang	Great talks! Congrats!
Farid Moussaviharami	Great session!
Jake Wen	Wonderful talk!
KiHong Lee	Great talk!!
Guochang Fan	Thank you all colleagues for your kind words and great support.
Yibin Wang	@Ronglih, great talk and very interesting findings!
Joseph Wu	Great talk Guochang!
Rajasekaran NamakkalSoorappan	I agrre with Cheng's question - Nrf2 toxicity is possible via reductive stress, please attend my talk tomorrow and I have an answer!!

Yuening Liu	Very nice talk Dr.Fan, did you find colocalization or interaction of Nrf2 and Keap1 decreased in the transgenic mice?
Yibin Wang	@Guochang: great story, very exciting!
Guochang Fan	Zhaokang: great question. May be toxicity
Zhaokang Cheng	Thank you Guochang!
Guochang Fan	@Yinbin: Thanks.
Guochang Fan	@Dr. Lam, many targets
Huabo Su	@Raj: look forward to your talk tomorrow!
Guochang Fan	@Dr. Liu, we did not check yet.
Yang Xiang	Guochang, very nice talk!
Guochang Fan	@John: great question. We do no know how to reduce Tsg101 level in I/R heart
Rongxue Wu	@Dr. Fan, What are the underlying mechanisms of the reduction of Tsf101 in response to IR?
Rong Tian	great talk!
Yuening Liu	Thank you Dr.Fan
Guochang Fan	@Dr. Wu: great question. we do not know how to regulate Tsg101 expression.
Zhaokang Cheng	@Raj (thumbsup)
Rajasekaran NamakkalSoorappan	sure Cheng!
Yuening Liu	Dr.Fan, I saw the mRNA level of p62 increased, did you also tested the p62 or keap1 protein stability when you overexpress Tsg101?
Rongxue Wu	As the change of Tsg 101 happens very fast after IR, could be any degradation happen?
Guochang Fan	We can talk off line @Drs. Liu, and Wu.
Rongxue Wu	Sure!
Yuening Liu	Sure, thank you!
John Calvert	I want to thank all of the presenters for great talks and thank everyone for their participation and questions!
Rong Tian	Thanks, John for chairing

Session 5: Keynote Lecture

name	message
Ivor Benjamin	Welcome to the BCVS 2020 Keynote Lecture by Dr. Heinrich Taegtmeyer, MD, DPhil who is Professor of Medicine at the McGovern Medical School, UT Heath Sciences Center at Houston. I am Ivor Benjamin and I will be moderating the session. Please type in any questions you have on the chat box, which is being monitored throughout this session
Adam Wende	HT, looking forward to your presentation (as always). Congrats on the Keynote!
Guochang Fan	Hi, Ivor, great to "see" you here.
Adam Wende	Ivor, great to "see" you as well. Hope all is well.
Ivor Benjamin	Thanks for joining, too
Heinrich Taegtmeyer	Thank you for the kind comments.
Brian Orourke	I'm not hearing the music. Can Ivor sign for us?
Raj Kishore	hello Dr. Benjamin
Brian Orourke	sing
Kishore Wary	I thought, Dr. Heinrich Taegtmeyer, MD, is affiliated to Baylor! My bad
Xuejun Wang	Nice to "see" you, Ivor. Look forward to Heinrich's Keynote!
Elizabeth Murphy	looking forward to your talk Heinrich!
Ronglih Liao	Good morning/afternoon everyone!
Jil Tardiff	Been looking forward to this for months!
Eric Olson	Greetings from Texas, COVID capital of the country,
Jiang Chang	Good morning Ronglih
Joseph Hill	Heinrich is my hero! (thumbsup)
Brian Orourke	Maybe Eric can play something on guitar?
Farid Moussaviharami	Hope everyone in Texas is staying safe!
Claudia Preston	Looking forward to the lecture. Thank you Dr. Taegtmeyer!
dongwook choe	there it is
Heinrich Taegtmeyer	Long live metabolism!
Jil Tardiff	Hah - my hero as well, we were thrilled when he accepted!
Rongxue Wu	It is nice to "see" you Rongli
Walter Koch	hello all -
Farid Moussaviharami	Music has started!
Madhumita Basu	Eagerly waiting for this Keynote Lecture by Dr. Taegtmeyer!
Rong Tian	Hello, Ivor!
Kishore Wary	Hello, Ivor.
Walter Koch	Looking good Ivor!
Rong Tian	Look forward to Heinrich's lecture! GO METABOLISM

Ke Cheng	Hello Everybody! Look forward to the keynote lecture.
Farid Moussaviharami	Looking forward to this amazing lecture!
Qutuba Karwi	Looking forward to your talk Heinrich!
Mohsin Khan	Hello Everyone.. Congrats Heinrich..Looking forward to the keynote lecture
Jiang Chang	Good to "see" Dr. Taegtmeyer!
Jil Tardiff	Namecheck for Ed Sonnenblick - one of my mentors at Einstein!
Loren Wold	Great "seeing" you Ivor! Looking forward to this outstanding presentation by Heinrich!
Rushita Bagchi	Looking forward to HT's keynote lecture! Greetings from Denver
Venkatesh Sundararajan	Looking forward to Dr. Heinrich's Bio-energetic talk.
Jiang Chang	Thanks Ivor for chairing this keynote lecture.
Rong Tian	(thumbsup)
Farid Moussaviharami	(thumbsup)
Konstantinos Drosatos	(thumbsup)
Anne Murphy	Yay for Metabolism!!
SIKTA CHATTOPADHYAYA	(thumbsup)
Amadeus Zhu	Hello from across the street at Rice!
Anne Murphy	(thumbsup)
Onur Kanisicak	(thumbsup)
Sakthivel Sadayappan	Thanks Dr. Benjamin for moderating this historical keynote session.
Kimberly Ferrero	(thumbsup)
Ivor Benjamin	My hats off to you, Sakthi, Jil and Loren for organizing this amazing conference! Congrats.
Jil Tardiff	Thanks Ivor - we had a lot of fun. Thanks for moderating this important session! Loved the Ed Sonnenblick callout
Ivor Benjamin	You're welcome(thumbsup)
Ronglih Liao	Ditto! Fully agree with Ivor. great job Jill, Loren Sakthi!!!!
Adam Wende	(preach)
Sakthivel Sadayappan	Dr. Heinrich Taegtmeyer, Thank you for your keynote address. As you said in: https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.119.315141 long live metabolism!

Scot Matkovich	I still remembered being grilled by Dr Taegtmeyer over cardiac metabolomic data I presented many years ago at AHA. It was a very good lesson :-)
Vlad Zaha	(preach)
Jil Tardiff	Great memory, Scot - and his questions were always both thoughtful and collegial. All too rare.
Scot Matkovich	Agree, Jil - all too often, post-presentation questions are merely designed to show off the questioner's knowledge. Heinrich aimed for true understanding.
Jil Tardiff	(thumbsup)
Heinrich Taegtmeyer	As I said before, you are very kind in your comments. I wish I had spokes a little faster. But that's me. Thinking slowly, but. hopeful;;y, truthfully.
Thomas Gillette	I could listen to Dr Taegtmeyer speak all day. It is only superseded by having a conversation with him. I always come away with a new way to think about things.
Heinrich Taegtmeyer	The Delbruck slide is the most important one - a precious reference.
Claudia Preston	(preach)
Adam Wende	Jil and Scot, I 2nd your comments. It was HT who asked me my first question ever at AHA Chicago 2002, still remember it and helped steer me to this field...
Sakthivel Sadayappan	Yes.. no worries.. we are not going anywhere.. enjoying each and every slide and the information!!
Rong Tian	totally in love with the "skinny" slide!
Brian Orourke	Metabolism also crucial for surviving in an oxygen environment via reducing equivalent cycling.
Jil Tardiff	Another great memory, Adam. He is influential on all levels.
Jil Tardiff	Gadian! One of the first papers Joanne Ingwall had me read....
JoanHeller Brown	I wish JoAnn was listening ! She would really appreciate this and the commentary.
Jil Tardiff	(thumbsup)
Sean Wu	Great historical perspective on metabolism. I've been a long time fan of HT. Always a pleasure to hear him speak!
Jane Freedman	Agreed!
Ivor Benjamin	I agree with Jil that Joanne Ingwall would love the shoutout, too
Qutuba Karwi	That is definitely a good idea Heinrich! Don't retire (content)
Paul Brookes	Yay Succinate! (thumbsup) Best of all the metabolites!
Brian Orourke	best or worst!
Heinrich Taegtmeyer	Best or worst, you are right, Brian!

Sakthivel Sadayappan	(gah)
Pilar Alcaide	BCVS: Always learning from the best!
Sathyamangla NagaPrasad	This is an amazing journey!! Learning so much!!
Ronglih Liao	Agree, Joan. Yes Joanne would have enjoyed the lecture and see the research in metabolism coming back strong!
Nicole Purcell	We take for granted what we know and use everyday in the lab. Great to hear the historical background! Thank you!
Rajasekaran NamakkalSoorappan	Truly, Dr. Taegtmeyer's talk is taking us back to our Biochemistry classes! Updated information and the connections to metabolic cardiac physiology is great! Thank you Sir!
Hesham Sadek	Fantastic talk!
Joseph Wu	Kudos to Jil-Loren-Sakthi for inviting Dr. Taegtmeyer as 2020 BCVS keynote speaker!
Ganesh Halade	Great talk, pleased to learn the historical perspective of metabolic research and Dr. Taegtmeyer journey in research !!
Michael Czubryt	Outstanding talk Heinrich, as always. Congratulations, and thank you!
Kishore Wary	Enjoyed your presentation. Beyond exercise - should I be eating Mediterranean food or vegetarian food! I wonder, what is the secret behind a good metabolic heart?
Venkatesh Sundararajan	Historic!!! It's a great opportunity for us listening to Dr. Heinrich's talk. Thank you Committee!!!
Paul Brookes	See new work from Sabatini lab this week in Nature Metabolism, claiming that DHAP is the signal linking glycolysis to mTOR activation.
Ajit Magadum	Great Talk.
Heinrich Taegtmeyer	I saw it, Paul. We have had several discussions about it (still without consensus). Mind you, my talk was recoded four weeks ago.
Paul Brookes	I'd love to hear your thoughts about it in more detail, maybe offline.
Kyle McCommis	Ditto!
Sakthivel Sadayappan	I wish to use some of these informative slides in the med school teaching!!
Heinrich Taegtmeyer	It would be an honor. Please feel free to use my slides.
Ying Ge	Hi Heinrich, so nice to see you here! Inspiring Talk! Love your "slow" and peaceful voice! Enjoy our time together in MIM. You are an outstanding scientist and such a humble person. I am so glad to know you. Congrats on your remarkable achievements!

Rajasekaran NamakkalSoorappan	No doubt Sakthi!
Keith Jones	great talk Heinrich! Thank you for your work!
Priscila Sato	Thank you! Amazing and inspiring lecture
Beverly Rothermel	Heinrich, do you know the mechanism of GPI inhibition in vivo?
Loren Wold	It's a total honor to be able to listen to an outstanding lecture by an icon in metabolism research. Bravo Heinrich!
Xiongwen Chen	A great talk! Learning a lot! Thank you!
Rajarajan AmirthalingamThanda	Thank you for the inspiring metabolism lessons
Heinrich Taegtmeyer	Very good question, Bev. I wish we knew. Working on it...
Beverly Rothermel	Then we surely will soon know
Heinrich Taegtmeyer	Apologies for "eating"into your lunch time. I will wrap up very shortly.
Jie Li	Thank you Dr.Taegtmeyer!!
Anja Karlstaedt	Phosphoglucose isomerase is following a Michaelis Mentee Kinetic and can be inhibited by its product Fructose 6phosphate and Erythrose 4phosphate. Therefore we use E4P as a Modulator in vitro in our experiments.
Robert Lust	Inspiring!
Bijoy KUNDU	Great talk Heinrich!
Farid Moussaviharami	This was an amazing and inspiring talk.
Jil Tardiff	No one is looking at their watch, Heinrich. This is just great, exactly what we envisioned
Farid Moussaviharami	Too early for lunch in the west coast any ways! :)
Kishore Wary	Enjoyed your stimulating talk. Thank you.
Adrian Arrieta	What Dr. Tardiff said!
Daniele Rodolico	Thank you, DrT. Impressive and inspiring talk
Farid Moussaviharami	(thumbsup)
Suresh Palaniyandi	very nice end message
Ivor Benjamin	It's been an honor to moderate your Keynote Lecture. Thanks so very much for your outstanding lectureship at BCVS2020, Heinrich. Bravo(preach)
Shyam Bansal	What a great sentence to summarize the role of metabolism
Qutuba Karwi	Excellent talk as usual!
Brian Orourke	Thanks Heinrich!
Claudia Preston	Thank you Dr. Taegtmeyer!!

Willard Sharp	very informative. thanks for a great talk
Raj Kishore	Thank you Dr. Taegtmeyer. Inspiring
Chiafeng Liu	Thank you Dr. Taegtmeyer for such wonderful talk.
Ronglih Liao	Thank you Heinrich!
Madhumita Basu	Learning from the best! Such an amazing presentation. Thank you so much Dr. Taegtmeyer!!
Loren Wold	Absolutely outstanding, and extremely informative!
Mingfu Wu	Thank you Dr. Taegtmeyer! Inspiring talk!
Dimosthenis Giamouridis	Thank you Dr. Taegtmeyer for the great talk!
Ganesh Halade	Superb, curious - what is your methods of choice for quantitation?
Sean Wu	That's a great slide of catabolism and anabolism with mediators. Bravo Heinrich!
Joseph Wu	Thanks Ivor for chairing this Keynote Lecture session
Sathyamangla NagaPrasad	Thank you Dr. Taegtmeyer!! Great informative talk!!
Farah Sheikh	Outstanding talk!
Carolina Gonzalez	Thank you Dr. Taegtmeyer, amazing talk.
Vlad Zaha	Amazing Keynote Lecture. Inspiring, as always!
Poonam Rao	Thanks Dr. Taegtmeyer, very informative talk
Svati Shah	Fantastic talk, thank you so much!
Farhan Rizvi	Great talk!
JoanHeller Brown	You are an inspiration to us all; a true scholar !
Hesham Sadek	Thanks Dr. Taegtmeyer for an inspiring talk! Jil, Sakthi. and Loren, congratulations on this outstanding meeting
Mebratu Gebrie	Thank you for great keynote
Konstantinos Drosatos	Amazing talk Heinrich! The combination of your commitment in addressing important metabolic biology questions and your ethos are what makes you a role model for all of us.
Scot Matkovich	Thanks so much to the organizing committee for inviting Dr Taegtmeyer's presentation!
Heinrich Taegtmeyer	Occam's razor: A lot of thinking goes into simple conclusions. Sometimes the thinking can be painful.
Jie Li	Thank you Dr. Taegtmeyer, amazing talk!
Zhaokang Cheng	Truly outstanding! Thank you Dr. Taegtmeyer!
Xuejun Wang	Thank you so much for your inspiring and informative Keynote, Heinrich!
Larisa Emelyanova	Thank you Dr. Taegtmeyer. Great talk!
Joseph Wu	Thank you Heinrich for your discoveries in CV metabolism research and for presenting as our BCVS keynote speaker!
Priscila Sato	yes please

Gopal Babu	Thank you Dr. Taegtmeyer for the inspiring talk.
Sean Wu	Great job to Jil/Loren/Sakthi for organizing this AMAZING keynote lecture and Ivor for the superb introduction and Q&A session!
Sakthivel Sadayappan	Dr. Taegtmeyer, We are truly inspired. Thank you for your outstanding mentorship and excellent support to the early careers.
Kimberly Ferrero	This is great advice for trainees and our mentors; thank you Dr. Taegtmeyer for a remarkable keynote talk.
Elizabeth McNally	Great advice on mentorship!
Jil Tardiff	Yes, mentors are forever. Trainees are our legacy.
Priscila Sato	So inspirational! Thank you
Ronglih Liao	well said, Jill. Fully agree!
Jake Wen	Fantastic talk and many thanks!
Loren Wold	100% @ Jil Tardiff
GRACIOUS ROSS	(thumbsup) Dr. Taegtmeyer & Dr. Benjamin!
Farid Moussaviharami	Great talk and discussion!
Paul Brookes	Thanks Heinrich! Enjoy the rest of the meeting, and stay healthy!
Sean Wu	(thumbsup)
Farid Moussaviharami	(thumbsup)
Beverly Rothermel	(preach)
Vlad Zaha	(preach)
Jaslyn Johnson	Good advice on mentorship!
Adam Wende	Long live metabolism, Thank you HT!!!(thumbsup)
Vlad Zaha	(thumbsup)

ACS SAHA: Research Advances to Treat Heart Failure

name	message
Joe Trusso	Welcome! Thank you for joining us. You should be hearing music play as we wait for the session to begin. If you do not, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Sathyamangla NagaPrasad	Welcome all!! This is Sathyamangla Naga Prasad, Moderator for this session. Would like to thank the AHA BCVS for organizing this exciting session!! All of you can ask questions real time in chat box!!
Raj Kishore	Thank you Hemal, Farah and Saumya for sharing your great science. Much appreciated
Hemal Patel	Good to be on
Detlef Obal	thank you very much for this great meeting. Looking forward for interesting talks.
Sathyamangla NagaPrasad	Also thanks for the SAHA program committee for putting this outstanding session!!
Farah Sheikh	Thanks for organizing and "seeing you" all here! Good to be here too!
Hesham Sadek	looking forward to great presentations!
Sathyamangla NagaPrasad	Look forward to talks from Hemal, Farah and Soumya!!
Saumya DAS	Thanks for the invitation and for all the hard work putting together this fantastic meeting.
Sakthivel Sadayappan	Welcome everyone
Steven Houser	Looking forward to hearing all the new things you are all doing
Sakthivel Sadayappan	https://redsaree.org/saha/
Dimosthenis Giamouridis	Hi Hemal! Greetings from the east coast!
Jiang Chang	Sakthi, thanks for your leadership and commitment for this wondering meeting!
Walter Koch	hey everyone!! - looking good Hemal!
Liya Yin	Sakthi, I will echo JC
Hemal Patel	Dimo/Wally--hope you are well
Sakthivel Sadayappan	Thank you, JC. As I said before, ACS is now part of the BCVS. Let's plan a big event next year in Chicago..
Sakthivel Sadayappan	Hemal, Thank you for presenting at this session.
Hemal Patel	looking forward to a good session
Sakthivel Sadayappan	I would like to thank the SAHA organizers to put this session
Sumanth Prabhu	Looking forward to these outstanding talks

Detlef Obal	@Sumanth, good to "see" you. Hope you doing fine.
Sathyamangla NagaPrasad	Very interesting Hemal.. does loss in caveolin alters cargo movements especially receptors..
Hemal Patel	Yes, we have evidence some receptors are gone and others become enriched with caveolin modulation
Sumanth Prabhu	You too, Detlef!
Sathyamangla NagaPrasad	Very nice!!
Shyam Bansal	Along the same lines: Hemal does it also increase the expression of beta1/beta2 receptors with caveolin overexpression?
Hemal Patel	We think beta 2 goes up and beta 1 may be more tightly regulated based on cAMP data in hearts and isolated cells. Immunoblotting is difficulty as the antibodies are not very good
Shyam Bansal	Interesting...Thanks,
Sumanth Prabhu	What is the heart rate of the Cav-3 OE mice compared to wild-type?
Snekha Rajasekaran	Dr. Patel, I attended your talk last year and had a chance to interact with you in person! Again, you have another interesting story- congratulations!!
Hemal Patel	In vivo they have a decreased HR over a 24 hour period...published a few years ago in BRIC. IN the hanging heart, the hearts are paced to eliminate this as a factor
Sumanth Prabhu	Lifespan has been correlated to resting heart rate in many species
Hemal Patel	Good to see you virtually, Snekha. Hope high school is going well.
Hemal Patel	Yes, we think the Cav-3 OE has this beneficial HR shift correlation with lifespan. Maybe the Austrians were onto something!
Sumanth Prabhu	Very interesting, thank you
Sathyamangla NagaPrasad	Along Sumanth line of thoughts.. are there differences adrenergic drive given the potential of differential distribution of beta1 versus beta2?
Snekha Rajasekaran	Thank you for asking! It's going well and I am excited for Junior year :)
Rajasekaran NamakkalSoorappan	Dr. Patel, Thank you for supporting SAHA!
Hemal Patel	Yes, we see increased contractile function that does not fatigue. So downstream signaling may be impacted, we see this in hanging hearts. In the in vivo setting we see enhanced Gi signaling so more complex phenotype

Raj Kishore	That's interesting Hemal. besides size changes in cav1 mutation exoosmes, does the cargo changes too?
Sumanth Prabhu	I would guess yes - another mouse model with modulation of adenyl cyclase and beta-signaling also has increased lifespan
Venkatesh Sundararajan	Interesting that complex- II activity is altered, Dr. Patel, I guess you did not see changes in C-III and C-IV as well, right?
Hemal Patel	Yes, we are curating the proteomic and miRNA data currently. We also made a knock-in mouse with this same human mutation to study in more detail.
Sathyamangla NagaPrasad	Seeing Gi coupling is great... we too have been seeing this shift!! really exciting..
Xiongwen Chen	Dr. Patel, did you see the crest number/density change?
Hemal Patel	We think the CII defect is due to nuclear morphology changes. We are currently following this finding up.
Gopal Babu	Hi Dr. Patel, Does the Cav OE affects sarcoplasmic reticulam proteins/function.
Walter Koch	Hi Farah!!
Detlef Obal	how does the receptor composition within the cav change over the life time?
Liya Yin	Great talk, Hemal!
Sathyamangla NagaPrasad	Great talk Hemal!!
Farah Sheikh	Hi Wally! Nice to "see you"!
Shyam Bansal	Interesting talk, Hemal!
Hemal Patel	We are starting to look at SR membrane changes. Have not looked at cristae density
Sakthivel Sadayappan	Excellent presentation, Hemal.
Walter Koch	Hemal - great talk and data!
Sathyamangla NagaPrasad	Farah great to see you!!
Sakthivel Sadayappan	Farah, Great start as always!
Suresh Palaniyandi	Great Talk Hemal, Good to 'see you' again here
Walter Koch	Is this session limited to only UCSD peeps??
Hemal Patel	Thanks
Rongxue Wu	Great talk Hemal
Detlef Obal	great talk
Nicole Purcell	Great talk Hemal!
Maria Cimini	Great talk Dr. Patel looking forward for the proteomics of exosomes.
Farah Sheikh	Nice to see you all! Hahah...Wally!

Jiang Chang	Hemal, does caveolin mut/ko impact exosome biogenesis? Great work!
Suresh Palaniyandi	Wally, Lol!
Rajasekaran NamakkalSoorappan	on behalf of the SAHA-Program-Committee, I thank everyone for attending this great session with great speakers!
Hemal Patel	We are starting to look at all the various caveolin KO mice for exosomes currently. Will hopefully know if in few months
Rajasekaran NamakkalSoorappan	Also, please visit the SAHA/Redsaree website for details and I encourage everyone to join SAHA and support!
Sathyamangla NagaPrasad	Thank Rajasekaran and your committee for putting this great session!!
Jiang Chang	Thanks Raj for this excellent ACS SAHA program
Rajasekaran NamakkalSoorappan	https://redsaree.org/saha/
Jiang Chang	thanks Hemal
Sakthivel Sadayappan	Congratulations to the SAHA program committee!!!
Suresh Palaniyandi	Well said Rajasekar! So far good going! Good Job SAHA!
Sakthivel Sadayappan	Rajasekar, Great efforts! Thank you!!
Rajarajan AmirthalingamThanda	Thanks Rajasekaran and your team for organising this great session!
Jiang Chang	Hemal, we have cardiomyocyte exosome reporter Tg mice that may be useful for the question. Happy to discuss more detail if you are interested in
Hemal Patel	Jiang, will e-mail you
Jiang Chang	Hemal, look forward to. jiangchang@tamu.edu
Raj Kishore	good to "see" you JC
Jiang Chang	Really want to SEE you Raj K
Raj Kishore	me too
Liya Yin	Nice to "see" you, JC and Raj K
Jiang Chang	Liya, always pleasure to see you
Suresh Palaniyandi	Thanks Sakthi for a nice virtual event! Kudos to all your hard work to pull it off!
Pilar Alcaide	Excellent presentation and work, Farah. Wondering if the loss of CSN6 impacts Cardimyocyte communication with resident macrophages or cardiac fibroblasts
Venkatesh Sundararajan	Congratulations!!! South Asian Heart Association (SAHA)/Red Saree. Going stronger!!!
Farah Sheikh	That is an excellent question Pilar..we have not looked at this yet! But we understand the implications of these cell-cell connections to other cell types in the heart

Rajasekaran NamakkalSoorappan	Superb Farah...Huge data with an interesting role for DSP!
Farah Sheikh	We are planning to do these studies now!
Pilar Alcaide	Thanks! great work! I am sure you will get more exciting data!!
Randy Faustino	Fantastic work Farah!
Jiang Chang	Farah, watching your talk. Great to see you and thank you for your support for ACS
Farah Sheikh	Thanks so much, Randy! Appreciate it!
Rajarajan AmirthalingamThanda	Hi Farah, is there any difference in basal CSN6 expression between RV and LV
Farah Sheikh	Thanks so much for Jiang! Nice to see you too!
Farah Sheikh	Great questions, Raj! We haven't found basal differences as of yet!
Saumya DAS	Very thorough and great mechanistic work. Some GWAS data that neddylation and Cullens may play a role in AF. Any AF in these mice?
Rajarajan AmirthalingamThanda	Thanks Farah
Farah Sheikh	We haven't found AF in this model...they present with classic heart failure...however, we haven't looked earlier in the model..if there may be inducibility to AF
Sathyamangla NagaPrasad	Excellent talk Farah...given significant neddylation and ubiquinaion are there changes in protein synthesis and changes in key contractile machinery
Rebeca PeresMorenoMaiaJoca	Very interesting talk Farah. Thank you.
Raj Kishore	fantastic work and talk, Farah
Kimberly Ferrero	Yes -- great talk!
Xuejun Wang	Enjoyed your talk, Farah. Were other CSN subunits altered in human ARVC myocardium?
Ying Ge	Very nice presentation Farah!
Jiang Chang	Farah, does the mutation of CSN6 promote adipogenesis?
Michael Czubryt	Nice talk Farah
Jane Freedman	Interesting talk Farah. Thank you
Farah Sheikh	we see a profile of protein degradation....we are now doing more rigorous studies...to look at protein turnover... in terms of contractile proteins..we don't see the total destruction that one would see...it's a very specific molecular signature
Ajit Magadum	Nice Work..
Farah Sheikh	Thank you all for the kinds remarks!
Sakthivel Sadayappan	Well done, Farah. Thank you!!

Sathyamangla NagaPrasad	Thanks Farah great talk!!
Walter Koch	great talk Farah!!
Xiongwen Chen	Farah, do you see any change of gap junctions?
Suresh Palaniyandi	Nice, Novel work!
Xiongwen Chen	Great talk!
Nicole Purcell	Great talk Farah! good to see you
Sathyamangla NagaPrasad	Saumya look forward to your talk!!
Rajarajan AmirthalingamThanda	Great talk Farah
Hemal Patel	Farah, nice talk!
Shyam Bansal	Great talk, Farah!
Sakthivel Sadayappan	Hi Saumya, Excellent start.
Venkatesh Sundararajan	Excellent work, Farah
Farah Sheikh	XJ....we are now looking more in human myocardium...whether other subunits are changed
Saumya DAS	Raj: you like this slide??!!
Farah Sheikh	Yes,...we see changes in gap junctions..loss of connexin43 is a key signature hallmark of ARVC and within our model
Walter Koch	great slide !
Raj Kishore	ha yes, but not as exciting as your talk
Jiang Chang	Saumya, listening your talk. Great to "see" you again
Saumya DAS	Thanks Wally and Raj. You are too kind.
Saumya DAS	Great to see you as well as Jiang!
Shyam Bansal	Farah: Considering cx43 is heavily involved, I think you should also check cross-talk between the resident macrophages and myocytes: As Pilar eluded to
Xiongwen Chen	@Farah: thank you!
Guochang Fan	@Farah: great talk! Congrats!
Farah Sheikh	Thank you Ying...! Thank you Jiang..yes we see increased lipid deposition in CSN6 deficient mice
Jiang Chang	@Farah, cool
Farah Sheikh	Yes...that's a great point...Shyam! We will look at that..thanks for the suggestion!
Rong Tian	great talk Farah
Farah Sheikh	Thanks Rong! Thanks Wally, Nicole, Mike, Jane!
Sathyamangla NagaPrasad	What is the time window for the dynamic release of EV from RBC following cardiac stress!!

Saumya DAS	While we have not looked at multiple time points, there is a large initial release at the time of injury and reperfusion. More consistent release after that for unto 4 weeks. We have not looked further than that.
Sathyamangla NagaPrasad	Thanks!!
Liya Yin	Dr. Das, Did EV from RBC affect oxygen delivery to ischemia area?Thank you. Great talk!
Saumya DAS	@Liya: we have not examined that.
Maria Cimini	Dr. Das, have you investigated the protein cargo of RBCs exosomes? What about other RNAs?
Adrian Arrieta	Hi Dr Sheikh :) Hoping I didn't miss this, have you seen any indication that CSN6 loss of function or mutation affects connectivity between "normal myocytes" and those that make up the cardiac conduction system?
Pilar Alcaide	Hi Saumya, very novel idea an beautiful work. Do RBC vesicles when boosting RBC prodcution during exercise change its content? could they be used to treat cardiac damage? Always great to see you and hear the exciting science!
Saumya DAS	@Maria: We have done small RNAseq for RBC-EVs or at least a subset of these. Have not done proteomics on it. We are doing that in a current project.
Jiang Chang	Saumya, how about liver uptaken of exo?
Maria Cimini	I am looking forward for the new data then :)
Saumya DAS	Hi Pilar, La liga kept us entertained for a while! Great question about exercise; we have not done that in the mice yet, but looking at it in humans.
Farah Sheikh	@Adrian: Nice to "see you"..We haven't done the nitty gritty optical mapping studies to show that bundle branch blocks (which impact cardiac conduction connectivity) encompass this model..but we believe our model recapitulates all of the classic EP defects observed in desmoplakin deficient model (where we do see all these cardiac conduction defects)
Pilar Alcaide	Thanks Saumya! looking forward to the data in humans! and to the Champions now that la Liga is over ;)
Saumya DAS	Jiang: strangely enough, no recombined cells in the liver. We think that most exosomes in liver get taken up by the resident macrophages and don't escape the lysosomes to allow for cre function.
Jiang Chang	@Saumya, make sense. thanks

Sathyamangla NagaPrasad	This brings in a very interesting question on what is the recognizing signal that RBC see for the EV release...
Sathyamangla NagaPrasad	following I/R
Liya Yin	@Dr.Das, did the EV targeted ischemic cells more than normal cells? Thank you.
Rongxue Wu	Do ECs from endothelial cells
Saumya DAS	RBCs are unique in that complement activation can lead to RBC exosome release.
Rajarajan AmirthalingamThanda	great talk Saumya, is there any effect on behavioral changes
Raj Kishore	fantastic as always. great work Saumya
Keith Jones	nice talk Dr. Das!
Maria Kontaridis	Great talk, Saumya!
Suresh Verma	Ho Dr. Das, Nice talk. What stimulus alters EV contents. Are these exosomes?
Sathyamangla NagaPrasad	Thanks Saumya that was a great talk!!
Ajit Magadum	Nice work...
Jason Gardner	Very good (thumbsup)
Chuanxi Cai	Great talk!
Zoltan Arany	great talk Saumya and great to "see" you
Rongxue Wu	It was great, Saumya!
Shyam Bansal	Excellent work, Saumya!
Saumya DAS	Liya: hard to know which cells are ischemic at the 4 week time point. Once we start doing time points, we may know better.
Sakthivel Sadayappan	Excellent presentation, Saumya!
Adrian Arrieta	Thank you Dr. Sheikh!
Hemal Patel	Excellent talk, Saumya
Rong Tian	fantastic talk!
Sakthivel Sadayappan	Thanks to SAHA for organizing this session. Please checkout at https://redsaree.org/saha/ for more information.
Rajarajan AmirthalingamThanda	Thanks to Sakthi and team for a organizing nice virtual event!
Jiang Chang	Saumya, great works!
Sathyamangla NagaPrasad	Can still ask questions in the chat box with the speaker for some more time!!
Liya Yin	Maybe hypoxia probe?
Saumya DAS	Thanks everyone for the positive and useful feedback! Pleasure to present. Thanks to SAHA and organizing team.
Gopal Babu	Thanks SAHA..great work everyone.

Farah Sheikh	Outstanding talk Saumya!
Sathyamangla NagaPrasad	Thanks SAHA program committee for organizing this exciting sessions!!! Excellent talks by the speakers!!
Saumya DAS	Rajaran: yes, we would love to assess cognitive changes. A project that is on the back burner.
Rajarajan AmirthalingamThanda	Thanks Saumya, I will write to you for further discussion
Margaret Chandler	Great talk Saumya!! Sorry I missed Hemal's earlier.
Hemal Patel	No worries Margie, will fill you in at the next grant review
Rajasekaran NamakkalSoorappan	Thanks Saumya Das! Very nice and informative talk
Rajasekaran NamakkalSoorappan	Thanks to all SAHA speakers for their wonderful presentations!

Concurrent Session 6A: Harnessing Precision Medicine to Treat Cardiovascular Disease

name	message
Joe Trusso	Welcome! Thank you for joining us. You should be hearing music play as we wait for the session to begin. If you do not, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Fuli Xiang	Cool!
Spoorthy Burli	Great animation!
Amadeus Zhu	Very cool work! I may have missed this because I joined the call late - what kind of transduction efficiency do you see with modRNAs and how does it compare to traditional retroviral methods?
Detlef Obal	when you isolate the cells - are they contracting?
Katherine Yutzey	Do you lose activated fibroblasts in the injury?
Fuli Xiang	Very nice talk! Thank you Dr Zangi. I am wondering if the reprogramming on the non-CM initiated a paracrine storm for vascularization.
Xiongwen Chen	Lior: That is great. Did you look at the cellular function of these reprogrammed myocytes?
Guo Huang	Nice work, Lior! Could the better outcome be explained by reduced fibroblast number/activation because they are partially converted?
Hesham Sadek	Great talk Lior!
Detlef Obal	nice presentation - including the stunning movie...:-)
Li Qian	Interesting data and great talk, Lior! Have you checked the in vivo uptake of moRNA by cardiac fibroblasts, and possibly by other non-myocyte populations?
Daniel Turner	NOS are also sequestered in caveolae which are downregulated during AF
Barbara Casadei	Sorry we haven't looked at caveloae but we do see nNOS on the sarcolemmal membrane in human atrial myocytes - much more so than in murine ventricular myocytes.
Guo Huang	@Barbara, may I ask which paradigm did you use to induce AF in nNos ko mice?
Lior Zangi	Thank you all for your comments :
Lior Zangi	modRNa cover about 40% of the LV, we reprogrammed in vitro sorted cells , after 5 weeks with modRNA delivery (twice a week) we found few cells that conmtract and has a mature sarcomere

Barbara Casadei	Sure - trans-esophageal burst pacing in isoflurane-anesthetized mice
Joseph Wu	Great talk Barbara, thank you for presenting!
Guo Huang	Thank you, Barbara.
Jinqi Fan	Insightful talk! great
Lior Zangi	our modRNA transfection is for both CM and non-CM. however we are able to target only non-CM cells in vitro and in vivo (un published data) to make this reprogramming more efficient
Li Qian	Thanks for the answer, Lior!
Jie Xu	Lior, great work! What do you think make non-CM cells special that give you high efficiency? Thank you!
Lior Zangi	Also, we tested this reprogramming genes in non-cardiac ischemic model (ischemic leg model) showing that partial cell reprogramming induce angiogenesis in vivo outside the heart setting
Sakthivel Sadayappan	Barbara, great talk. Thank you for speaking at the 2020 BCVS Virtual Scientific Session from Oxford, England!
Katherine Yutzey	Hi Lior, are you also seeing a loss of fibrosis?
Elizabeth Murphy	Great talk Barbara. Is NOS/NO involved in AF in the cardiomyopathy model?
Jane Freedman	Thank you Barbara for a wonderful and insightful talk!
Li Qian	Wonderful talk, Barbara~! Learned a lot.:-)
Barbara Casadei	Thank you - listening to myself is not my favorite activity but great talk and good to hear from of you and read your comments!
Fuli Xiang	Lior, is the 7G modRNA inducing more vascularization compared to the modRNA-vegf which is currently in clinical trial?
Lior Zangi	yes the reprogrammed non-CMs has reduce collagen production post MI, also the angiogenic factors are also protective this leads to less fibrosis
Guo Huang	I enjoyed your talk, Barbara. Thank you!
Jiang Chang	Hi Jennifer, great to hear your talk. and nice to "see you" again
Jun Feng	great talk, Barbara, isolation of human atrial cells not easy
Rachelle Crosbie	@Barbara. Really great talk! Does the MIR31 treatment targeting dystrophin secondarily affect channel expression since dystrophin interacts with voltage gated channels?
Michelle Tallquist	Hi Jennifer, good to "see" you.
Jennifer Davis	Great to hear from you Michelle and Jiang!
Fuli Xiang	Hi Jen, nice to "see" you:)

Lior Zangi	We haven't compared it yet to the VEGFa modRNA, but I think it will be interesting to see the differences. VEGFa in actopic expression and in reprogramming cells its more physiological values and many different angiogenesis paracrine factors
Barbara Casadei	Hello Tish! Unfortunately I don't have a ready answer to your question other than one could consider all human specimens as coming from individuals with a cardiomyopathic substrate (either having a CABG or the aortic valve replaced). I hope you are all staying safe.
Li Qian	Great to "see" you, Jennifer~!
Mebratu Gebrie	Great talk, In cardiomyopathy how did you see the involvement of Nitric oxide Synthase?
Sakthivel Sadayappan	Hi Jen, Nice to your excellent start!
Hind Lal	Hi Jen, nice to see you
Jennifer Davis	Hi Hind and Fuli- thanks for watching my talk!
Blake Monroe	Dr Casadei: I'm curious, were either MAO (monoamine oxidase) or COMT hits on the GWAS?
Barbara Casadei	Thank you Jane - I'd rather be there...
Jennifer Davis	Hi Li!
Sean Wu	Lior/Barbara/Jen - Great talks and very nice story and data!
Barbara Casadei	Hi Rachelle - great question. We are looking at the sodium channel but, as always, it will take longer and it will cost more!
Jennifer Davis	Thank you Sean
Xiongwen Chen	Hi Jen, did you see increased cardiac rupture after MI in your mice?
Joseph Wu	Great talk Jen, thank you for participating in this year's virtual BCVS.
Jennifer Davis	Not in the inducible fibroblast-specific MBNL1 knockouts but we did see it in global MBNL1 knockout mice
Xiongwen Chen	Thanks, Jen! Great work!
Barbara Casadei	@Blake - ultimately, who knows but not obviously - I would refer you to the excellent AF compendium in Circ Res
Adrian Arrieta	Hi Dr. Davis,
Adrian Arrieta	Does MBNL1 decrease in fibroblasts as a function of age?
Jennifer Davis	MBNL1 is very lowly expressed in the quiescent fibroblast and only gets upregulated with injury. We've yet to look in an aging model- great question!

Adrian Arrieta	Great, thank you!
Rong Tian	Hi Jen, enjoying your talk! Wonder if the KO has M/F difference?
Jennifer Davis	We have not yet seen sex differences in our assays- thanks for your question Rong!
Farah Sheikh	@Jen-- great talk! I might have missed this..but with cardiac injury..is Mbnl1 upregulated at all in myocytes?
Barbara Casadei	@Mebratu - we only looked at this in mice. We did not see upregulation or clear membrane translocation of nNOS (as it has been described in human tissue Damy et al Lancet) but follwing an MI, adverse LV remodeling was worse in the nNOS KO - others have confirmed these findings several times. I'd prefer to look at human tissue but ventricular tissue is difficult to obtain in my institution.
Michael Czubryt	Great talk Jen!
Jennifer Davis	I didnt talk about MBNL1 in myocytes, but yes it gets upregulated in myocytes after injury. We are working up the myocyte angle now.
Eric Olson	How does MBNL regulate all those mRNAs? Does it recognize a specific sequence or secondary RNA structure or are the effects indirect?
Jennifer Davis	THanks for your question Farah!
Katherine Yutzey	Hi Jen, Is the MBNL1/Sox9 connection also underlying the valve abnormalities in the muscleblind KO?
Farah Sheikh	Thanks @Jen
Pilar Alcaide	Hi Jen, Excellent presentation and beautiful data!
Jennifer Davis	Hi Eric! Thanks for your question. There are putative MBNL1 binding sites throughout the transcriptome many in 3' UTRs.
Nicole Purcell	Nice to see you Jen! great data and talk!
Dominic DelRe	Beautiful work Jen. Really enjoyed your talk!
Elizabeth Murphy	Great Talk Jen!
Rachelle Crosbie	@ Barbara. thank you. enjoyed your STM paper.
Hind Lal	Thanks @ Jen for the terrific presentation
Barbara Casadei	Great Talk - thank you
Ying Ge	Really nice presentation! Congrats Jen!
Robert Correll	Nice talk, Jen!
Jie Xu	Beautiful work Jen! Thanks for your presentation
Fuli Xiang	Beautiful work, Jen!
Sean Wu	@Jen - Is MBNL1 also targeting splicing like they do in myocytes?

Catherine Makarewich	Great talk, Jen!
Joseph Wu	Congrats Jen for your outstanding work!
Jennifer Davis	The regulation appears to be direct although other RNA binding proteins can compete for the same binding sites as a mode of regulation
Li Qian	Beautiful work and great talk, as always, Jen! :-)
Sean Wu	@Jen - Thank you for the response and congrats on the beautiful study!
Jennifer Davis	Hi Katherine- we have not looked at the valve abnormalities but I think this is a great hypothesis especially since the transgenic MBNL1 overexpressors turn on a ton of osteogenic genes.
Fuli Xiang	I am curious about if the matrifibrocyte could revert to myofibroblast...
Jennifer Davis	Hi Sean- yes MBNL1 does target splicing but we've found that MBNl1 primarily acts as a transcript stabilizer in fibroblasts
Jennifer Davis	Fuli- that is such a good question! I wonder if the matrifibrocyte needs to transition through the myofibroblast state
Sean Wu	Great! Thanks Jen.
MariaPaola Santini	Hi Jennifer, very interesting. I maybe miss it, but when you say that the MBNL1-KO fibroblasts become more progenitor, you mean that they revert into normal fibroblasts tor they transition into a completely different cell (mesenchymal to primitive mesenchymal transition)?
Jennifer Davis	Thank you all for participating in a great session!
Fuli Xiang	Really enjoyed the three talks in this session, thank you!
Sakthivel Sadayappan	We still have 9 min to conclude the session! If you have questions and comments, please keep going!!
Jennifer Davis	Hi Maria- thank you for your question. So resident cardiac fibroblasts are derived from epicardial cells durning development. Our findings indicate that the MBNl1 KO fibroblasts are reversing back to an epicardial progenitor rather than stay a specified fibroblast
Amadeus Zhu	SOX9 is involved in CAVD - I wonder if MBNL1 regulates its expression in aortic VICs like it does in CFs...
MariaPaola Santini	thanks very interesting

Jennifer Davis	While we have not published this data yest, MBNL1 overexpression in Vics activates them like it does in fibroblasts. We have not looked at gene expression in VICs but my hypothesis would be that SOX9 gets upregulated based on the fibroblast work.
Katherine Yutzey	Might be interesting to put the mice on a high fat diet and see if they get calcific aortic valve disease....
Jennifer Davis	Awesome suggest Katherine
Fuli Xiang	Hi Katherine, we tried. No good luck on that:)
Sakthivel Sadayappan	Thanks to the speakers, Lior Zangi, PhD, Barbara Casadei, MD & Jennifer Davis, PhD and the moderator, Dr. Renzhi Han for this outstanding session. Well done!
Jennifer Davis	Thanks for the great session!

Concurrent Session 6B: Novel Animal Models and Translational Insights

name	message
Maria Kontaridis	Hi everyone! My name is Maria Kontaridis from the Masonic Medical Research Institute and I am your moderator for session 6B: Novel animal models and translational insights. Please feel free to post your questions to the speakers in this chat. Enjoy the session!
JoanHeller Brown	Hi Maria, I miss you!
Maria Kontaridis	Nice to "see' you! Miss you too!! Hope all is well and you are keeping safe in CA
Edward Thorp	Hi Maria, Ed Thorp checking in
Joe Trusso	Welcome! Thank you for joining us. You may be hearing the previous session playing as we wait for this session to begin. If you do not hear or see anything, please submit a support ticket by clicking on the Request Support button located at the bottom left of the player.
Jiang Chang	Hi Maria, good to see you too
Meenakshi Madhur	Hi Maria. Nice to 'meet' you.
Maria Kontaridis	Hi Ed and JC!! This has been great so far, despite not being in person! Nice talks and exciting work!
Liya Yin	Hi,Maria, nice to "see" you. looking forward to the exciting session. Thank you
Jiang Chang	Thank you for moderating the section.
Maria Kontaridis	Hi Meena! Looking forward to your talk!
Maria Kontaridis	Hi Liya!
Robert Lust	Hi Maria. Lisandra sends her regards!
Rachel RothFlach	Hi Maria! I'll join in on the hellos! hope all is well!
Maria Kontaridis	Tell her I said hi! Missed her at NIH!
Maria Kontaridis	Hi Rachel!!! Hope all is well with you!
Poonam Rao	Hello dr. Meenakshi, looking forward to your talk
Meenakshi Madhur	Hi Poonam
Shyam Bansal	Hi Meenakshi, may be i missed it but at what time after DOCA salt was the echo done for HFpEF?
Meenakshi Madhur	3 weeks
Rajarajan AmirthalingamThanda	Great work, Is there any difference in the RV function
Shyam Bansal	thanks
Meenakshi Madhur	We didn't look specifically at RV function but we can go back and look. Great question.
Shyam Bansal	Do they develop HFrEF if you keep them longer?

Santosh Maurya	What about circulating ANP level?
Rajarajan AmirthalingamThanda	Thanks
Meenakshi Madhur	We haven't kept them longer but I have heard that after 6 weeks, they can develop reduced EF
Sumanth Prabhu	Hi Meena, Did you use CCR2 as a marker for your macrophage panel??
Shyam Bansal	Thanks! so this is similar to TAC in that case
Meenakshi Madhur	We measured ANP by PCR in the heart and it is increased.
Rebecca Levit	Hey Meena - did you look at CCR2 in the macrophages?
Meenakshi Madhur	@prabhu @Levit - we did not use CCR2 in our antibody panel but it was one of the transcripts that came up in our cite-seq analysis as being significantly upregulated in Doca-salt mice.
Mei Methawasin	What is the back-ground of the mice used for DOCA-salt model? The dose of DOCA and salt and the time for the mice to develop HFpEF?
Meenakshi Madhur	C57Bl/6J; 3 weeks.
Meenakshi Madhur	1% salt in drinking water.
Meenakshi Madhur	100 mg DOCA pellet
Shyam Bansal	@ Meena: Any idea if the phenotypes of these immune cells are different at 6-8 weeks when there is HFrEF as compared to at 3 weeks (time of HFpEF)
Mei Methawasin	100 mg doca for how many days release? Thanks Meena.
Meenakshi Madhur	No but that is a great question and something that we plan to look into in the future.
Sakthivel Sadayappan	Thanks Maria for moderating a great session!!
Rebecca Levit	Did you see neutrophils in either group?
Meenakshi Madhur	More neutrophils in DOCA-salt group.
Maria Kontaridis	Hi Sakthi- great meeting! Congrats to you, Jil, and Loren!
Rong Tian	Very interesting work! Do you see any of the changes shown here in another hypertension model?
Chengxue Qin	Great presentation. Have you looked at the gender differences?
Meenakshi Madhur	We haven't looked yet but we plan to do that.
Pilar Alcaide	Great talk! Have you investigated endothelial cells in this model?
Meenakshi Madhur	No we first sorted on CD45+ cells so we did not look at endothelial cells.
Venkatesh Sundararajan	@ Meena, in CITE-Seq, only the antibody is barcoded or beads as well.

Pilar Alcaide	Great session so far with a great moderator! Good to see you Maria!
Rongxue Wu	Looking forward to your talk, Edward.
Shyam Bansal	Great work, Meena!
Sumanth Prabhu	Hello Ed, look forward to your presentation
Rajarajan AmirthalingamThanda	Great work Meena
Edward Thorp	Hi Rongxue! Hi Sumanth!
Maria Kontaridis	Aw! (blush)! Thank you, Pilar. Great talk earlier today!
Meenakshi Madhur	both antibodies and beads are barcoded.
Liya Yin	@Meena did you see the vessel density change? Great talk, thank you
Meenakshi Madhur	We did not carefully quantitate vessel density. We did see more perivascular fibrosis.
Meenakshi Madhur	@Mei - 100 mg DOCA pellet is implanted and we sacrifice animals at 3 weeks.
Pilar Alcaide	Thanks Maria! great session you are moderating. More to come with Ed's exciting data!
Mei Methawasin	Have you done the pressure-volume study in DOCA-salt mice?
Edward Thorp	Thanks Pilar! Great earlier talk Pilar by you earlier today
Rongxue Wu	Hi, Maria, good to "see" you, and thank you for your moderating the section.
Liya Yin	@Pilar, nice to "see" you
Mei Methawasin	DOCA pellets have different release duration available to choose, 21 days, 60 days, or so.
Pilar Alcaide	Hi Liya!!!
Meenakshi Madhur	@Mei - yes we did perform invasive hemodynamics in the DOCA-salt mice. They have increased EDP and tau. We used the 21 day pellets.
Rongxue Wu	Hi Pilar, great talk earlier today!
Pilar Alcaide	Thanks Ed! Enjoying learning more about efferocytosis from you!
Sakthivel Sadayappan	Good to see your presentation, Ed!
Edward Thorp	Thanks Sak!
Maria Kontaridis	Hi Roxi! Hoe you are well-
Maria Kontaridis	Nice talk, Ed! Nice progress on a great project!
Edward Thorp	Thank you Maria!
Jiang Chang	Ed, Watching your presentation. Good to see you again!
Chengxue Qin	Really interesting project. Have you looked at the level of pro-resolving lipids in HFpEF and HFrEF? Thank you
Edward Thorp	you too Jiang!

Shyam Bansal	Great work,Ed! how did CCR2 correlate with either of these markers (IL-1b or MerTK+ cells)
Edward Thorp	with Gabby Fredman Chengxue
Edward Thorp	thank you Shyam, CCR2 positively correlated with Il-1b I believe
Chengxue Qin	Perfect!! Exciting. Hello from melbourne
Shyam Bansal	So, can I assume MerTK correlated with CCR2- cells (or resident macrophages)?
Rajarajan AmirthalingamThanda	Great work Ed!
Edward Thorp	mertk-ccr2 not sure; need to look back at the primary data; good question
Edward Thorp	thank you Rajarajan
Mei Methawasin	Can HFpEF occur in HIV patients?
Edward Thorp	hfpef with HIV Matt Feinstein
Rajarajan AmirthalingamThanda	How about the efferocytosis in RV and LV failure, is there any difference between Both Ventricle macrophage phenotype and the resolution of inflammation
Edward Thorp	good question between ventricles, we haven't looked
Venkatesh Sundararajan	Excellent work, Ed
Rajarajan AmirthalingamThanda	Thanks Ed!, I am looking on Rv and PH
Edward Thorp	thank you Venkatesh
Edward Thorp	sounds interesting Rajarajan
Ganesh Halade	Nice data set on HFpEF, other than heart, any other organ inflammtion
Rajarajan AmirthalingamThanda	I will write to you for further discussion
Edward Thorp	hi Ganesh, spleen yes is inflammed
Pilar Alcaide	Hi Ed, Did the MertK ko mice gain weight similar to WT on the high fat diet?
Edward Thorp	hi Pilar weights were equivalent with KO mice but not with over-expression interestingly
Pilar Alcaide	Thanks!
Pilar Alcaide	great job!
Edward Thorp	thanks Pilar!
Sumanth Prabhu	Excellent talk Ed!
Sumanth Prabhu	Hi Pilar!
Edward Thorp	thank you Sumanth!
Dominic DelRe	Ed, beautiful work. Really enjoyed your talk!
Shyam Bansal	Very interesting work, ED!
Edward Thorp	thank you Dominic

Edward Thorp	thank you Shyam
Poonam Rao	Very Good work
Ying Ge	A beautiful presentation Ed!
Rong Tian	Hi Ed! exciting studies, cannot wait to hear more when you come to visit!
Edward Thorp	thank you ying
Chengxue Qin	Thanks Ed. Great presentation
Pilar Alcaide	Hello Sumath! get to see you this morning, and now!!
Danish Sayed	Nice work Ed
Edward Thorp	thank you Rong!
Edward Thorp	thank you Danish!
Santosh Maurya	Excellent work Ed.
Joseph Wu	Great talk Edward!
Ameen Ismahil	Great talk Ed
Edward Thorp	thank you Santosh. thank you Joseph. Thank you Ameen
Ying Ge	Hi Maria! a great session with all the great talks
Maria Kontaridis	Hi Ying- great talk this am! Good to see you!
Venkata Garikipati	Hi Ed :Great talk, Did you had a chance to look at the CD163 along with sMerTK?
Shyam Bansal	Great Session, Maria! Enjoyed it a lot.
Edward Thorp	thank u Venkata; did not look at CD163
Rong Tian	Hi Maria, great session, thanks for chairing!
Maria Kontaridis	Thanks, Rong- great to see you here!
Venkata Garikipati	Ok, thanks! Exciting work!
Maria Kontaridis	Hi Shyam! Hope all is well with you!
Shyam Bansal	Hi Maria, yes everything is good. Thanks for asking. I hope everything is well on your side as well.
Mei Methawasin	@Ed
Dominic DelRe	Great session Maria. Thanks for moderating!
Maria Kontaridis	Thanks, Dominic! Hope all is well with you!
Mei Methawasin	@Ed I'm wondering if the HIV patients have low WBC counts, would they develop HFpEF?
Edward Thorp	good question Mei; Dr. Matthew Feinstein at Northwestern may know better that I
Meenakshi Madhur	HIV patients do develop HFpEF. They have a specific deficiency in CD4 counts but not lower CD8 T cells or myeloid cells/macrophages. Also with antiretroviral therapies, even CD4+ T cells are no longer very low either. I think their risk of HFpEF may be even greater than people without HIV.
Edward Thorp	good thought
Mei Methawasin	Thank you

Venkatesh Sundararajan	@Rabea, Wondering whether ROS signaling plays a role. Have you looked at it?
Nicole Purcell	Great Session..thanks Maria and to all the speakers
Maria Kontaridis	please feel free to continue with questions to the speakers!
Shyam Bansal	Great work, Rabea!
Rabea Hinkel	We did not look at ROS signaling, good question, thanks
Maria Kontaridis	Thanks, Nikki! Hope all is well!
Maria Kontaridis	Great talks to all the speakers in this session!
Venkatesh Sundararajan	Thanks, Great work, Rabea
Rabea Hinkel	Thanks
Meenakshi Madhur	Thanks all for listening and for the great questions.
Maria Kontaridis	Thank you everyone for your participation and your attendance to what was an excellent session!
Shyam Bansal	@moderators and speakers: Thanks for a great session
Edward Thorp	Thank you Maria for moderating!
Meenakshi Madhur	Thank you Maria!
Maria Kontaridis	Thanks, Ed, Meena, and Rabea!
Rabea Hinkel	Thanks Maria for moderating, thanks to the other speakers, great talks
Sakthivel Sadayappan	Thanks to the speakers Meena Madhur, MD, Edward Thorp, PhD Rabea Hinkel, DVM and the Chair, Maria Kontaridis, PhD! Another great session!!
Chengxue Qin	Great session. Thanks for all the speakers and Meena for chairing
Meenakshi Madhur	Maria chaired :)
Chengxue Qin	Thanks Maria... too early in Melbourne, need some coffee :)
Chengxue Qin	Great talk Meena. I wonder if have looked at gender differences in the immuno cell profile in your model