

Welcome to Yale Cancer Center Answers with doctors Francine Foss and Lynn Wilson. Dr. Foss is a Professor of Medical Oncology and Dermatology, specializing in the treatment of lymphomas. Dr. Wilson is a Professor of Therapeutic Radiology and an expert in the use of radiation to treat lung cancers and cutaneous lymphomas. If you would like to join the conversation, you can contact the doctors directly. The address is canceranswers@yale.edu and the phone number is 1-888-234-4YCC. This week Francine welcomes Tesheia Johnson. Ms. Johnson is Chief Operating Officer for the Yale Center for Clinical Investigation and the Associate Director for Clinical Research at Yale School of Medicine. Here is Francine Foss.

Foss Let's start off by having you give us a little history about yourself? Tell us how you got here and what got you interested in this field of clinical trials?

Johnson I started my career here at Yale actually more on the administrative side working with the bench scientists, and then I was recruited to the University of Wisconsin Madison and spent about five years there leading their clinical research efforts and then moved to Vermont, and prior to that I was in biotech. I have been around research for a very long time. I think the draw to clinical trials and the clinical side of things just came out of a basic need for the research faculty. The research faculty really just needs support to get the work done and that is what we are here to do, that is what my job is all about at the School of Medicine.

Foss Tesheia, just to give people an idea of the magnitude of the research effort at the Medical School and at the Cancer Center, can you give us a rough idea of how many clinical trials and how many investigative projects are ongoing that are under your auspices?

Johnson At the Medical School when we look at just the number of clinical trials, that means a trial involving a human being, we have generally about 900 studies and that is all phases, some are very early and very basic all the way to outcome-based research and surveys and disease prevention. In the Cancer Center, we have just under 200 active studies that involve therapeutic agents and therapeutic interventions as well as outcome and prevention studies, and we probably have another 50 years or so studies queued up ready to begin enrollment of actual people into the therapeutic pipeline.

Foss When we talk about clinical trials, we typically think about a patient getting say a medication, but clinical trial span, as you pointed out,

a whole bunch of different types of interventions, and you mentioned outcomes research as one of them, so in terms of the whole field of clinical trials, can you just break it down a little bit for people and tell us what the different types of trials are?

Johnson Basically a clinical trial, as we define it here in the School of Medicine and most of academic medicine, is just a study that involves people, but I use the word people loosely. Some of our

3:14 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

studies are very very basic and they could be just using human material, so someone might give a blood sample, and then our researchers take it back to the lab and they focus more on the genetic aspects of research and moving from that very basic and early research, even some of it involving animal models of human disease, we then move on to earlier phase clinical research where we are really looking at the development of new therapies and phase one based research. That means it is the first time in humans, and then our research really stretches the entire gamut from that very early phase, it is the first time we are looking at something in man, very complicated studies, to sometimes we have participated in very large multi-center studies where we might be one of only 40 centers around the country looking at an intervention and then we have research that is very much outcome based. We have research in the School of Public Health that looks at disease prevention on large scales involving thousands of people. We also have survey based research. I think when we say clinical trials, people automatically think, well they want me to take a pill or they want to inject me with something. But some of our research, for example in the Department of Psychiatry, really involves things like surveys to understand depression or to understand the diseases of mental health. We have a lot of imaging based research here looking at images of the brain and understanding people's sensitivity to food and food images. It stretches the entire gamut here at Yale.

Foss You work, as you mentioned, with all different disciplines, not just with cancer, but you oversee all the research that is being done in all aspects of the Medical School.

Johnson Yes, I do. My job really is to facilitate research. Research is so complicated and years ago the way that research was done in an academic center, was you had a single investigator that had grants and he had an infrastructure, and the regulatory burdens for the investigator, although the

regulations are there for a reason obviously, they were very different. Now, that single investigator, it is so hard for them to do all of this and still focus on the most important aspects, the research, the patient care and training the next generation of clinical scientists. So our center, and my job, is to focus on all those other aspects so that our faculty, like you, can just focus on those really important things such as advancing the research, the patient care and training the next generation.

Foss There are multiple aspects to doing a clinical trial, as you alluded to, can you step us through what those different aspects are, what are the different steps?

Johnson Basically it all starts with an idea. Most of the research that we do here is investigator initiated research, that means our faculty have an idea they would like to pursue and see where it goes, and that involves the faculty member first having to develop a protocol, which is basically a recipe, of

6:36 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

this is what I am going to do this, this is what the study is going to look like, and then from there, they have to prepare a submission to the IRB, that is the institutional review board, and that is basically a body of people, both internal and external including lay members, who are charged with looking at everything that we do that will involve a person to say, this is an okay thing to do to a person, and they review all aspects of the study and the investigator would then have to reply to any concerns they might have and address those, they get through the IRB, and then from a regulatory review point they might be ready to start, but if they are going to receive funding, whether it would be from the NIH and its federal funding, or they have an industry partner, there is usually a grant or contract that has to be negotiated, and so there are steps involved there as well such as preparing budgets, understanding the total cost to get the study done and then there is facilitating the work. To facilitate the work here, we have many many research courses, we have an imaging course, we have a biostatistics course, we have an informatics course, and we really oversee a lot of the activity there to make sure that they have the resources they need to support the faculty. After they have approvals from the IRB, and we have a signed contract or a grant has been approved, then they are actually ready to begin the really difficult part, finding patients that you need to match the criteria for the trial. It is really quite extensive; sometimes the start time alone could be several months to a year.

Foss Are there teams of people that work together to get all these pieces in place?

Johnson Absolutely, we have, as I mentioned statisticians, we have informatics professionals who help us gather the data. We have research coordinators, trained staff members, nurses, non-nurses, and technicians, and they are all involved in pulling this together on behalf of the investigator. The investigators themselves actually are very active. In some intuitions, they are more hands off and there are a lot of support staff to do the work, but I find the faculty at Yale are so invested in what they are doing, that they oversee a lot of the work personally and even do a lot of the work personally.

Foss Tesheia, is it your impression from working with multiple faculty members, particularly those who are doing translational research, that it is easy for a physician who is interested in getting say a molecular test or doing some translational part to a clinical trial, to be able to interface with the basic science groups and some of the other core facilities on campus?

Johnson It is easier than it used to be. I think that the way the medicine has changed, the way the research has changed, there is much more of a connection between basic science faculty and clinical faculty. The Cancer Center is a wonderful example of that and the Cancer Biology Institute, to have a design to bring our faculty closer together so they can have those conversations, so that we

9:49 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

can translate those very early basic findings into something that actually might have benefit for a patient one day.

Foss Patients may or may not be concerned about the whole issue of their DNA getting out, their confidential information about their genes or proteins, or their tissues that might somehow get out and affect their insurance or other issues with confidentiality, and as we are doing more molecular studies that's more of an issue. Can you talk a little bit about some of the safe guards in research that protect patients from that happening?

Johnson Absolutely, as I mentioned all research is reviewed by the institutional review board and privacy standards in research are very stringent. The regulations have changed even as recently as last year dealing with the advent of electronic medical records and things like that and new high-tech security standards have even been layered on to not only our research records but our clinical records, and there is a very careful review by the IRB to look at the security profile of every study that comes through before it can even begin, and so those are really important things to have. If someone decides to participate in a clinical trial, it is spelled out for them how they are going to be protected and the security around all of their confidential health and genetic information. It is spelled out in what is called an informed consent and the HIPPA privacy statement that we have with the university, and so they will actually see in great detail how their information is going to be protected, who has access to it, and how it will be used not only for the study, but in the future.

Foss Another question Tesheia, what is the interaction say between the investigator and the FDA? The FDA of course regulates most of these new drugs and I am just wondering, how often do you interface with the FDA and how does that come into play as clinical trials are evolving and being developed?

Johnson For the most part, our research is regulated by standards, as dictated by the FDA. There are many many standards, some in NIH and other regulatory authorities, but for the FDA, they really get involved when we want to do what is called an investigator initiated application, so we have an investigator who has a compound that they are interested in and most of the time we do not have an industry sponsor or we might have an industry sponsor who is just providing some resources, but the investigator themselves is actually the applying party to the FDA, and we do I would say maybe 20 to 30 of those kinds of studies here, where it is our faculty and our institution interacting with the FDA submitting the applications, describing our study, saying this is what we want to do as a research protocol, as a research study, is this okay and that's really where we have the involvement of the FDA a lot more actually in cancer than the other areas of the institution, but we
13:01 into
mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

don't do an awful lot of that kind of research right now. As I mentioned, a lot of investigator initiated work, but generally under the auspices of NIH and other regulatory bodies or any funders.

Foss It is also true with the FDA that since they oversee research in general, that they may actually come in and visit Yale and look at our records

just to make sure we're doing things properly.

Johnson Yes, and not only the FDA, but when we have sponsors involved, pharmaceutical sponsors, there are people coming in all the time to look at what we are doing, and in our research units and hospital and the research that takes place there, JCAHO standards apply, and those visits happen annually. For our research that is funded by the NIH, they actually come in and do site visits quite often, as we will have in our Cancer Center in a few years when we go for a renewal, so there are lots and lots of not only auditors but granting officials that come in and take a look and basically give us the blessing on what we're doing here, and how our research is run.

Foss I would like to take a break right now for medical minute. Please stay tuned to learn more about clinical trials with Tesheia Johnson.

Medical

Minute Breast cancer is the most common cancer in women. In Connecticut alone, approximately 3,000 women will be diagnosed with breast cancer this year, but there is new hope. Earlier detection, noninvasive treatments and novel therapies provide more options for patients to fight breast cancer. Women should schedule a baseline mammogram beginning at age 40, or earlier if they have risk factors associated with the disease. With screening, early detection and a healthy lifestyle, breast cancer can be defeated. Clinical trials are currently underway at federally designated comprehensive cancer centers such as Yale Cancer Center to make innovative new treatments available to patients. A potential breakthrough in treating chemotherapy resistant breast cancer is now being studied at Yale combining BSI-101 a PARP inhibitor with the chemotherapy drug, irinotecan. This has been a medical minute brought to you as a public service by the Yale Cancer Center. More information is available at yalecancercenter.org. You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.

Foss Welcome back to Yale Cancer Center Answers. This is Dr. Francine Foss and I am joined today by my guest, Tesheia Johnson, who is working in a very major way in clinical trials and clinical research here at Yale University. Tesheia, we talked a lot at the beginning of the show about clinical trials and various components of clinical trials and how one gets a trial up and running, but I know that one of your important roles involves what we call the YCCI. Could you tell us what the function is of the YCCI and its history at Yale?

15:55 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

Johnson YCCI is the Yale Center for Clinical Investigation and it is the academic home of our clinical and translational sciences, or CTSA, which is a major research award from the NIH. We actually started our center prior to even knowing that we were going to receive a CTSA. Our Dean, Robert Alpern, who is wonderful and insightful, decided that he really wanted to grow clinical and translation research at Yale and so he pulled together some senior faculty members and asked them what we needed to do to grow here at Yale, and that was back in 2004 that he initiated the strategic planning process and the fact that he came back with was it is really not about the NETS recruitment or the NETS resource you open, what we need is an infrastructure to do clinical and translational research and right in the strategic plan they named the center, and said this is what we want. We want a center whose only job is to facilitate research, to help us get through the review process, to help us get contracts, to help train our staff and that is what the YCCI is about. It is that infrastructure, and we have a focus on training, not only staff who are involved in research, but training future faculty members to be research scientists and so we have training awards and pilot projects and those sorts of things and that's really what the center is about.

Foss Is this center federally funded as well?

Johnson It is, we have a lot of institutional support from the Dean's office and from the hospital but we also have a very large grant, the CTSA which is around just over 9 million dollars a year, and we have just renewed that so we are in the first of our five years of finding. In addition to that, our individual faculty who are utilizing the centers, have their grant dollars that total almost 200 million dollars. And so it is a lot of federal money that is involved in the research at the center.

Foss And this center is focused exclusively on clinical research?

Johnson Clinical and translational research. So anything leading to the translation of research in human disease.

Foss Can you talk a little bit about the relationship between the YCCI and Yale Cancer Center and Smilow Cancer Hospital?

Johnson Sure, from the very beginning when we wrote our CTSA application when we thought about the development at the YCCI, one of the biggest goals we had was not to duplicate any resource that existed at Yale. Instead what we focused on was strategic partnerships where we can have relationships with other major centers on campus and say, what can we do together that would be greater than the sum of our two parts, and so that is our relationship with the Cancer Center. We created a brand new biostatistics core in partnership with the School of Public Health and recruited its leader, Dr. Peter Peduzzi. We have initiated some major advances in the IT infrastructure here

19:00 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

at Yale together. We purchased equipment, we funded joint pilots and we had some major collaborations around clinical trials and the clinical trials support structure to run research here and to help facilitate research for the faculty.

Foss Can you tell us a little bit about a new initiative that you have undertaken, which I think is going to be a very important one, and that is the whole issue of outreach and the clinical trial awareness campaign.

Johnson We have launched a major campaign to help the public understand the importance of clinical trials and to make them more aware of the fact that clinical trials exist. This has been two years in the making, two years of research and listening, we have had focus groups and community leaders involved and what we really came to understand is that the general public does not understand clinical trials. They have the misperception that there are inadequate protections in research or that everything that we want to do involves people with diseases, or they involve pills, and so we really want to correct a lot of those misperceptions and give people good information about clinical trials and clinical research and why it is so important and that's what we are doing now.

Foss Can you talk about your approach? How you actually get this information across to people?

Johnson One of the things that we realized with some of the focus groups is that general our audience said, when I am at Yale, I do not always have good

information about what is going on, and so one approach is literally to get the audience that we already see, to provide in our clinics a more integrated approach about what we are doing with research and so, brochures, informational material. A major piece of this is web based, things are different, we are a Google society, anytime you want to know something, the first thing you do is Google it, and so we have had a major refresh of our website to provide a lot more resources, a lot more information about what clinical trials are available, information about clinical trials, frequently asked questions, all sorts of things. In addition to that we have actually included some advertising in this campaign and people will see, if they haven't already, billboards and things like that talking about clinical trials and where they can get more information.

Foss What about the patients who are at Yale right now and the patients in the community and other parts of the state, for instance, who might be interested or want to know about clinical trials?

Johnson The first thing that I would say is visit our website, YaleStudies.org, or if it is for cancer, it is YaleCancerCenter.org. There is a lot of information on our website not only for patients but for physicians who want to refer patients for our clinical trials. And the other point that we want to make with this is that we have research that is available for those who have been diagnosed

22:08 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

with a disease like cancer, but also we have a lot of resources generally for healthy people. So, we are looking for volunteers to help us with some of our genetics studies, with some of our survey based studies, with disease prevention, and we have a lot of work in diabetes, cardiovascular disease, mental health and it really runs the gamut. So if you are thinking about how you can help, how you can help develop the next generation of medicines, visit the website and understand that. We also have a new profile feature so if you do not see a study that is quite right, quite what you are looking for, you can actually build a research profile and tell us what you might be interested in for the future and then when one of those studies opens here at Yale, we will contact you.

Foss Is there a phone number for patients who have basic questions about research?

Johnson There is actually an 800 number that is on the website, but our general telephone number is (203) 785-3482 and anyone can call that number and all telephone calls are returned for anyone who wants more information about clinical trials.

Foss One of the other questions that people may have is with respect to financial obstacles that the patients may have, how am I going to travel from one end of the state to Yale if I want to participate in a trial? How long am I going to have to be there? I know some of the trials have built in ways of dealing with that.

Johnson Absolutely, most research studies offer reimbursement for travel and so they will give you gas money, money to park, and some studies also offer small financial incentives for participation and so if you have those concerns, you can speak to the research team, and say, these are my concerns and they will be happy to answer questions about specific studies, but almost all of our studies have some sort of financial reimbursement related to travel expenses.

Foss If a patient were to see a study or have an interest in a particular study, there are eligibility criteria that need to be fulfilled. Could you talk us through what would happen next? The patient maybe sees a study online that they might be interested in and they make a phone call, what is going to happen next?

Johnson For example, you have been diagnosed with cancer and you see a study on the website that looks right for you, that is not really the whole story. There is a lot of criteria related to whether you are the right eligibility for the study and so it might involve age, it might involve the stage of your disease and so what happens next, if it is in the Cancer Center, the phone call will be returned by a research nurse who can speak to you and understand what the specifics are of you and your disease and it might be that you might not qualify for the study you saw and they can help you and point you in the right direction. If it is a study that is one of the healthy volunteer studies, then they

25:11 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

might be looking for specific parameters and the recruitment coordinators can help you with that and help determine whether you are right for a specific study that you see online.

Foss Say you are an investigator at Yale and you have a study that is not accruing patients, would your office get involved with your outreach programs, how would you go about trying to look for patients for those studies?

Johnson One of the biggest efforts that we have in these campaigns is our partnerships with the community. We have a lot of studies that are really focused on health disparities and looking at specific diseases and reaching the minority population has been extremely difficult, and not just for Yale. This is a national problem, that general minorities do not participate in clinical trials at the same rate as other races, as Caucasians, and so in order to correct this, we have partnered with the community. We partnered with the African-American Episcopal Zion Churches, it is 18 local churches, African-American Churches, and their ministers and their presiding elders as well as JUNTA, a Hispanic organization that is local and they are really helping us to spread the message in the community that is important for everyone to participate in clinical trials because it is important for us to understand various genetic make ups and how diseases affect different populations. Some of our studies are geared towards specific populations where the diseases are more prevalent, like diabetes, cardiovascular disease, and some kinds of cancer. So, that has been an important piece of this effort and that has been really important for our investigators because they have not had the kind of access to do these kinds of studies. Additionally, we are hoping that this new outreach campaign will make it easier not only for people to sort of self identify that they might be interested in participating in the research, but for physicians to have a ready list of studies that they could say, you know, I have got this patient that I might want to refer to Yale and those are the major pieces I think that will help faculty who have studies that are not accruing.

Foss I think the whole disparity issue is a really important one, and looking at it from the other side, if you are in a minority group, it is important to know that a lot of the research they have done, particularly, with drugs and then cancer and specific diseases other than cancer primarily looks at Caucasian populations and we really need to have more studies with large numbers of patients coming from different ethnic groups to understand whether there are differences and how these drugs work, and responses to some of these treatments.

Johnson That is a major piece of the campaign and the effort in the community. We had probably about 20 hours of training for the community members who are involved in this with us, including some sessions with your director, Dr. Lynch, and we explained a lot of these concepts to them in cancer

and when we explained to them the FDA has actually had to change labels adding specific racial indications on some of their drugs, they were blown away, they did not understand that and I think

28:26 into mp3 file http://yalecancercenter.org/podcasts/2012_0129_YCC_Answers_-_Tesheia_Johnson.mp3

the old guinea pig mentality is what stuck with them so we have explained to them all of the protections that are in place, and how research is really done, and these health disparity issues and what we are trying to address, and they have not only come on board full force, but they have become our cultural ambassadors, and so you might not only see campaign material with our faculty, but you see campaign material with our cultural ambassadors from the community talking about the importance of clinical trials in the community and around the community.

Tesheia Johnson is Chief Operating Officer for the Yale Center for Clinical Investigation and Associate Director for Clinical Research at Yale School of Medicine. If you have questions or would like to add your comments, visit YaleCancerCenter.org, where you can also get the podcast and find written transcripts of past programs. You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting.