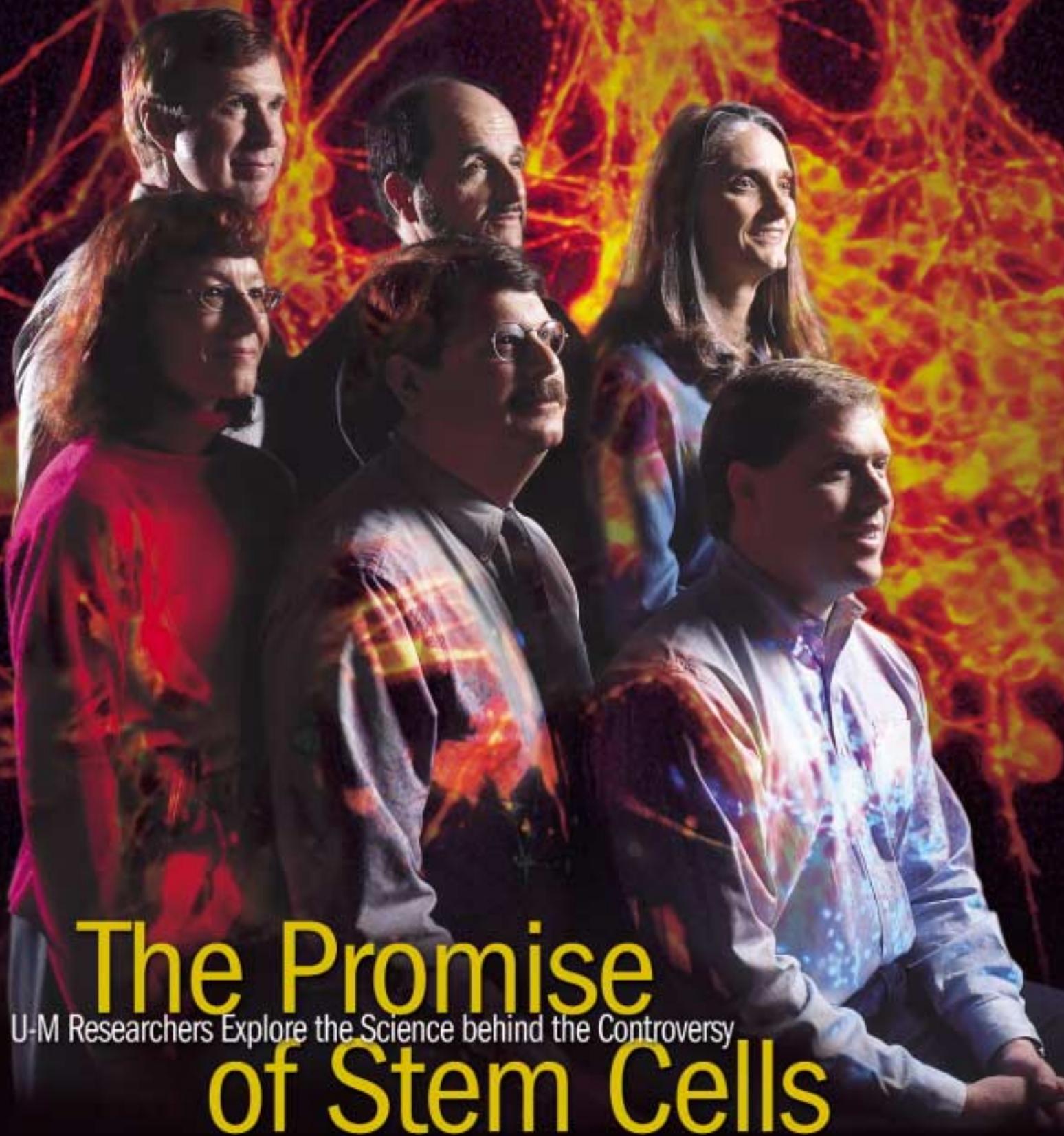


medicine

at M I C H I G A N

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The Promise

U-M Researchers Explore the Science behind the Controversy

of Stem Cells

The Residency Years, Then

House officers past and present talk about the experience

by Whitley Hill

In the mid 1800s, a young doctor working and teaching at the University of Michigan Medical School wrote to his betrothed: "Oh, what a mass of stuff there is to learn. The further we progress, the more we find in advance which we should learn."

One hundred years later, though they worked in one of the biggest and best-equipped hospitals in the country, and though the understanding of medicine had leapt far forward from the days of bloodletting and rampant sepsis, the young resident doctors toiling at Old Main might well have echoed that sentiment. And even today, the physicians of the new millennium shake their heads and smile in recognition at these words. For ask any of them: though they've done the work, passed the tests, and framed the sheepskin, there's still "a mass of stuff to learn"— and on living, breathing human beings.

Residency. For those whose knowledge of the word stems only from *ER* reruns, it conjures images of dramatic operations, unremitting exhaustion and separation from family. Ask most any doctor about residency and they'll admit to these experiences freely, but they add to the equation a quieter truth: this time in a doctor's life can be marked with exhilaration, accomplishment, pride, and profound personal growth. Friendships are made that last a lifetime. And memories, too, have an uncanny sharpness.

We asked physicians who completed their residencies in the 1940s and 1950s to share these memories with *Medicine at Michigan*. At the same time, we asked young doctors diving into patient care today what their lives are like. Perhaps surprisingly, despite the vast changes in the practice of medicine over the last 50 years, this comparison emerges, in many respects, as a good example of "The more things change, the more they remain the same."

"You could tell a Hopkins nurse from a U-M nurse by her cap. And they had beautiful capes that they wore when coming across from their quarters, and the cape was also distinctive for the school. Gold and blue for Michigan grads." —Robert Dobbie

As was true for virtually all young doctors entering the field in the 1940s, a resident at Michigan was almost always a resident, living in the interns' quarters just behind the psychiatric unit, which sat behind Old Main. In many ways, it was a simpler time. Downtime for young doctors — what little there was — meant hauling the record player to the basement of the interns' quarters and dancing to Tommy Dorsey records, or walking out Geddes Road to the Huron River. There were football games, ice cream dates at Miller's, meetings of the Victor Vaughan Society, midnight cups of coffee and information-sharing with fellow interns, but mostly there was work. Work and learning.

and

Now

Robert P. Dobbie (M.D. 1946, Residency 1953) graduated from Michigan's Medical School in December of 1946 and immediately started his internship here. Following residency he went on to practice in the Navy, then at the University of Tennessee, after which he became medical director for Baxter International. Retired and living outside Chicago with his wife, Barbara (a head nurse at U-M in the 1940s), Dobbie is currently a



Barbara and Robert Dobbie

Photo: Andre Vospette

consultant for the nutrition division of Nestle, USA. In a telephone interview from their home, he and his wife recalled those days.

"I remember as an intern I got \$25 a month and paid back to the Hospital \$18.75 for room, board and laundry. I had the difference for movies or whatever. We were on call every other night. As interns, we rotated on a monthly basis: one month each on surgery, medicine, ob/gyn and pediatrics — the requireds — and electives such as ophthalmology, otolaryngology and neurology. We worked very hard.

"We were required to not only work up every new patient, but also do all the lab work: analyze urine, draw blood, take samples, and run them in the lab ourselves. We had to start all the IVs ourselves. The IVs were in something called Baxter Bottles — they were reusable bottles and the tubing was all rubber. After use, we returned them to the basement supply room where the tubing was flushed out and hung up like spaghetti to dry overnight. And they made the IV solutions right there in the pharmacy, in stainless steel vats with a rotor, like an outboard motor has.

"The interns all wore white 'duck' trousers," recalls Dobbie. "And white shirts; some were like barber shirts that buttoned down the sides and had high collars. They had to be white. And short white coats over that. Then when you became a resident, you graduated to a long white coat, white shirt and tie and, of course, clean white shoes."

Dobbie adds that when those shoes became scuffed or soiled, the young doctors could stop by the nurses' station to dab on the white shoe polish that was always available there.

"The nurses all wore nicely laundered, lightly starched — oh, I'm being told *highly* starched — white uniforms with white stockings and white shoes. And the nurses from different schools wore different caps. You could tell a Hopkins nurse from a U-M nurse by her cap. And they had beautiful capes that they wore when coming across from their quarters, and the cape was also distinctive for the school. Gold and blue for Michigan grads. They were made of heavy wool. They wore capes so that their highly starched uniforms wouldn't get crushed.

"I married the head nurse on the surgical ward in my second year of residency. She had been the head nurse in urology. Dr. Nesbit,

Photo: Gregory Fox



Herbert Sloan

the head of urology, required you to memorize all kinds of laboratory values for every patient. And I wasn't all that

"Every bit of ability I had was being used to the utmost. That's the way I felt during those years when us punks were trying to do things that real men did."

—Herbert Sloan

good at that. So the head nurse always slipped me a pony — a cheat sheet — on grand rounds. She would go with us on grand rounds and sometimes when I was stymied, she would fill in the necessary words and satisfy the chief. I tell everyone that in order to pass on to the next stage in my residency, I had to marry the head nurse..."

Barbara Dobbie pipes in: "I don't know if Bob has made it clear how very poor we were. I concocted 28 different ways to fix hamburger. I had them written down in a little blue notebook."

"They were all good, too. I loved them all, and still do!" says her husband.

But it was the physicians under whom Dobbie worked that made the most lasting impact.

"Michigan was unique because in the surgery department, they had some of the nation's top-flight people in all fields. Fred Collier, chairman of the department, was one of the top five surgeons in the country. Max Peet was one of the top neurosurgeons. Carl Badgley was one of ➤

the top 10 orthopedists. Dr. Fralick was probably number one in ophthalmology, Dr. Furstenberg in ENT. Reed Dingman was probably the best cleft palate surgeon in the world and founded the plastic surgery department. John Alexander, the founder of thoracic surgery in this country, and his number two in thoracic surgery, Cameron Haight — we were working with these guys! You were on their service and you were their scut boy.”

...

Herbert Sloan, M.D. (Residency 1949), of Ann Arbor, was in his second year of residency at Johns Hopkins on the fateful day of December 7, 1941. “All the older residents who had been around forever and were practically professors — it was like that at Hopkins — went off to war and left a bunch of young, inexperienced jerks to try to handle things. That was the most challenging time of my whole life. Every bit of ability I had was being used to the utmost. That’s the way I felt during those years when us punks were trying to do things that real men did.”

During his general surgery residency, Sloan was confronted with a difficult tuberculosis case and went looking for a helpful text. “I went across the street to the bookstore and there was a big red book by John Alexander on the surgical treatment of pulmonary tuberculosis, and I still have that book. And so

knowing who this great man was, I was delighted to come to Ann Arbor and take my [thoracic surgery] training under him.”

In the 1940s, a resident at Michigan was almost always a resident, living in the interns’ quarters just behind the psychiatric unit, which sat behind Old Main.

Sloan first walked through Old Main’s ornately carved entryway in 1947. Built in 1925, the hospital was already showing its age. “I recognized that it was an old hospital, but at the time I came, when there was still a good deal of pulmonary tuberculosis to be treated, there was a separate medical tuberculosis unit on the seventh floor and a surgical tuberculosis unit on the eighth floor. And there was an absolutely superb head nurse [Marge Morgan] on the surgical floor, and I thought it was one of the best-run units I’d ever seen.”

Sloan went on to perform one of Michigan’s first successful open heart surgeries and to serve a leading role in the planning and development of Old Main’s replacement, the \$285 million current University Hospital, dedicated on June 1, 1986.

...

In his office on West Stadium Boulevard in Ann Arbor, where he has practiced pediatrics for 40 years, **William Graves** (M.D. 1953, Residency 1958), echoes Dobbie’s praise of the faculty he worked under. After completing medical school at U-M and a short internship in Denver, Colorado, Graves was a resident at Old Main from 1956-58.

“I was always in awe of the senior staff at the University Hospital. Jim Wilson was a kind gentleman from New England, Harvard-trained. He was a great general pediatrician

A residency lexicon

Resident, intern, house officer, PGY1...these all seem to mean different things, depending on who you are, where you are, and even when you are. Though there’s some crossover in the definition of these terms, they represent the evolution of medical school postgraduate training over the past 50 years.



Red Hiss

“A year of rotating internship, a hospital-based experience in the major areas of medicine — internal medicine, surgery, pediatrics, ob/gyn and psychiatry — this was the standard and only post-medical school training that physicians had in this country, until the 1940s, when graduate medical education started to become commonplace,” says Roland “Red” Hiss (M.D. 1957, Residency 1964, Fellowship 1966), chair of the Medical School’s Department of Medical Education. “Prior to the 1940s, probably 95 to 97 percent of medical school graduates had one year of hospital-based experience known as internship. In fact, for many years, the licensure in 48 of the 50 states required just one year of postgraduate training. Nobody does only that any more, unless they have unique career plans. There was a period of time for people like me when

we graduated from medical school, had an internship, and then had a residency. But by about the mid-1960s to the early 1970s, the freestanding internship was basically dropped. Now, and for the past 25 years at least, medical school graduates go into a residency directly and don’t stop with an internship. They still occasionally call the first-year residents ‘interns,’ almost as a traditional nickname, but there isn’t something called an ‘internship’ that is separate from a residency.”

It is during this residency that doctors are today often referred to as “house officers.” At U-M, the House Officers Association is a bargaining unit, founded in 1973, which represents the interests of the resident doctors.

Residents are also sometimes referred to as “PGY1,” “PGY2,” etc., referring to the first or second “postgraduate year.” It’s also interesting to note that today’s medical students receive far more hands-on training than did their predecessors; increasingly, students in the last two years of medical school are on the floor attending rounds and seeing patients under the watchful eyes of senior residents and attending physicians. [m](#)

Photo: D.C. Goings



William Graves

and the highlight of our residency program was his 11:00 conference that he held every morning for the students and residents. Two or three patients would be presented every morning and his discussions on some of the classic pediatric diseases were invaluable. And on Thursday mornings there was an X-ray conference with Dr. Wilson and John Holt, one of the great pediatric radiologists in the country, going back and forth! They were both great men."

Was residency grueling? "I don't think so, no. We were young and we enjoyed what we did, we were stimulated by the whole process...I don't think it was as hard for the resident as it was for his wife. A lot of residents lived in Pittsfield Village and we all worked pretty long hours and were gone weekends. If it weren't for Pittsfield Village and the friends we made there, it would have been much harder. But I think it was the wives who held the families together, no question about it."

Graves recalls a watershed moment for him near the end of his residency — a point at which training and dogged curiosity came together productively.

"There was a baby admitted to the hospital with about a two-month history, since birth, of coughing, recurrent pneumonia and coughing up a greenish mucous. This baby had us all stumped for about six weeks. It was a Saturday in December 1958, and I was in our apartment and I had nothing to do. There were no football games, and so I got out this pediatrics book on respiratory disorders and looked through all these rare cases that could explain coughs in babies and came across a paragraph describing congenital bronchobiliary fistula. I went to the medical library, found a copy of the case report that had been done in Boston. I showed it to Dr. Wilson and he said, 'That's what she has. That shows you the value of publishing a single case report.' Cameron Haight operated on her and she did quite well. I was lucky. It showed me that if you don't know, keep reading, keep digging. More often than not, the answers are out there."

...

Just east of Pittsfield Village is a neighborhood of modest ranch houses where **Philip Harris**, M.D., makes his home with his wife, Mala, and their three young sons, Adon, Micah and Daniel. Born into a family of missionaries,

Photo: Gregory Fox



Philip and Mala Harris and sons, Daniel, Micah and Adon

"There's a reason why they call it 'residency' — you eat and live it. You're never going to have this opportunity again in your whole life."

—Philip Harris

Harris was raised in the Central African Republic. He earned a D.V.M. from Ohio State, but he is now a third-year otolaryngology resident at Michigan. Mala Harris home-schools the boys; the walls of their living room are covered with crayoned drawings. As with the Dobbies, Harris and his wife come across as a team working toward a shared goal as they sit and talk about their lives.

Asking for help is the theme that comes up time after time, in interviews with older doctors and with younger ones. And that first on call night of internship is a good time to start.

"For the person who's the intern, your life is consumed by the hospital," says Harris. "You're in this pressure cooker and your staff and senior residents are saying, 'Why didn't this get done? Why weren't the labs drawn? Why wasn't this checked?'"

But then you have the opposite side: the patients, the families, the nursing staff who don't want to have an intern who's just graduated handling their issues. So you have this compression. Then you add on this 120-hour workweek and if you add into it kids and the financial stress, not being able to pay your loans off, that becomes very stressful. But it's good, too. It molds you as a person."

In 1984, an 18-year-old woman named Libby Zion was admitted into Cornell Medical Center's New York Hospital with a high fever; she died the next morning. Her death was determined to be the result of an adverse reaction between two medications, adminis-

tered by a resident in his 22nd hour of work. A grand jury investigation into Zion's death prompted a widespread examination of graduate medical education, specifically the practice of demanding hours for residents. The result was a series of limitations on the working hours of residents practicing in New York state.

Did the case change residency policies at University Hospital? No, says James Woolliscroft, M.D. (Residency 1980), executive associate dean of the Medical School.

Photo: Bill Wood



James Woolliscroft

"While most of the discussion of the Libby Zion case has been about work hours, the major issue was oversight," says Woolliscroft. "The house officers were allowed to be on their own. Oversight has always been an issue that we've paid — and continue to pay — a lot of attention to. We did not make changes because we already had those systems in place. As far as hours go, we're always in compliance with the Residency Review Committee and the Accreditation Council for Graduate Medical Education. They have requirements for hours and caseloads. If you don't meet their requirements, your accreditation status is put on probation. This is serious stuff."

Woolliscroft points out that although today's residents put in significantly fewer hours than, say, their professors did, the nature of the work has intensified, in response to patients' decreased inpatient time. "The ➤



Katharine Chang

Says Harris, "My first day of internship I was on call for the pediatric surgery service, and I had 25 kids and was scared to death. I knew nothing about pediatric surgery. There was no way I could run a code on a child. But it was a lot of ignorance on my part because if there was a code, the pediatric residents wouldn't need me at all, or if there was a problem, I'd just call a pediatric fellow. I think it really comes down to people being comfortable to ask questions. I always tried to pick one nurse who was a nice person, someone who would be helpful. Or you can call your resident and run it by them. You want to not look like a fool, so you don't want to be calling all the time. You realize that you learned a lot in medical school. It's amazing how it comes to you."

One wonders how this process is navigable at all when a resident has young children. The answer, suggests Mala Harris, lies in a flexible and positive attitude.

"You've got to have a normal life. You can't just immerse yourself in your husband's schedule. For example, dinner — I'm not going to make a huge dinner and wait by the door for Philip to come home. If he's home, he's home. If he's not, fine."

Does this young family look ahead yearningly to the time when residency is over and things can get back — or finally — to normal?

Says Mala Harris, "We're enjoying our life now! After we had Adon, we wanted to go ahead and have the rest of our kids because we wanted to have them close together. We could have said, 'Let's wait until he's done with medical school' or 'Let's wait until he's done with residency,' and we could have kept waiting and waiting...."

"There's a certain amount of anxiety that you need to have when you're taking other people's lives and health into your hands. And a certain amount of humility."

—Katharine Chang

Just a block away from the Harris home, another young resident is dealing with similar issues.

Katharine Chang is in her third year of a pediatrics residency. Chang and husband Jon Hanson, a Ph.D. candidate in political science at U-M, are parents of a one-year-old daughter,

Annika. These days, Chang's on-call schedule is augmented by work at a continuity clinic, in her case Child Health Associates, a busy Ann Arbor office where she learns first-hand about the practice of pediatrics.

'One of those awful policies...'

If it was impossible to find African American doctors who were residents at U-M in the 1940s and 50s to interview for this piece, that's because there simply were none. The first black resident was admitted to the program in 1965.

"Before the civil rights movement, there were many, many hospitals, whether implicitly or not, that simply didn't accept black students, or black interns and residents,"



Howard Markel

says Howard Markel (M.D. 1986), Ph.D., and the George E. Wantz Professor of the History of Medicine and director of the Historical Center for the Health Sciences at the University of Michigan. "There was a 'gentleman's agreement' to not do certain things. Such policies were rarely discussed openly, but the reasoning behind these bigoted responses had to do with the assumption that white patients would not accept a black doctor treating them. In point of fact, I doubt anyone asked if this was true or not.

"Our Medical School was a pioneer in accepting students of color, Asian students, women and Jewish students, long before other schools did. On the other hand, when it came to the internship and residency programs at University Hospital, African-Americans were not accepted until 1965. Making sense of segregation using today's sensibilities is, alas, an impossible task. It's one of those awful policies that we don't have anymore, thankfully. But regardless, working on equal access to health care and health education for all Americans is something we all need to continue to address in the 21st century.

"When you speak to elderly black physicians who were rejected from medical schools or residency programs several decades ago simply on the basis of their skin color, they will freely tell you about the psychic scars caused by segregation. In this regard, the University of Michigan is a microcosm of American society."

Asking for help is the theme that comes up time after time, in interviews with older doctors and with younger ones. And that first on-call night of internship is a good time to start.

Chang says, "There's an emphasis, especially in the primary care field nationally, that we have more experience with outpatient medicine and primary care medicine. So it used to be that you did nearly all your training in the hospital and now it's shifted a bit. Our intern year we spend most of the time in the hospital. But now, half my year is on call and half is not."

"When we're on service we usually get in around 7:00 a.m. We pre-round on our patients without the attending. The interns are expected to see all their patients when they're pre-rounding. The senior residents usually see all the really sick patients and get to as many of the other ones as we can. But we have only an hour because we have a conference from 8:00 to 9:00, and from 9:00 to 12:00 we round with the attendings — they can be general pediatricians, endocrinologists, nephrologists, cardiologists, whatever. But they're the doctors responsible for those patients while they're in the hospital — the ultimate. Then at noon we have another lecture, but sometimes patient care supercedes the lecture and we don't make it."

Caring for a baby at home is a little like being on call 24/7. Adding residency to the mix can make for some serious sleep deprivation. "I returned from maternity leave when my daughter was eight weeks old and basically I hadn't slept for eight weeks, and then was on call in the PICU that first month. It was hard. I'd be on call, be up all night, then come home...even if I could go to sleep right away, which usually I can't, you still have to have dinner and talk to your family a bit. And then I'd have to get up twice during the night to nurse. I didn't get a full night's sleep for a very long time...I never expected to be this tired."

Fatigue aside, this young doctor is finding that residency is paying a dividend in the form of the first inklings of confidence in her skills as a doctor. "It's not so much that I know what I'm doing, as it is that I'm not as clueless as I'm afraid I am!" she laughs. "Actually, I think that some amount of fear is a good thing. There's a certain amount of anxiety that you need to have when you're taking other people's lives and health into your hands. And a certain amount of humility."



Nancy Furstenberg, M.D. (Residency 1954), finished her internal medicine residency at Michigan in 1954, one of only a handful of women physicians to do so. She went on to a career at U-M, Wayne County General and other hospitals across the country. If medicine was a boys' club, then Furstenberg did her part to break down the walls, not by throwing punches at the pretty-good-for-a-woman jibes that occasionally came her way, but simply by getting the job done, and then some.

"You were on call every other night and every other weekend, and since I was single, I often took call for guys or women that were married so that they could have family time. That was the kind of thing you did. There was camaraderie — that was the most wonderful part. It's 3:00 a.m. and you're all sitting around after an emergency case, drinking coffee down in the dining room and everybody's hanging out all their emotions. That's when you made your real friends and relationships. You needed a lot of support. No matter how well trained or cocky you were, you were really scared a lot of the time."

"You needed a lot of support. No matter how well trained or cocky you were, you were really scared a lot of the time."
—Nancy Furstenberg

"I made a mistake one day and gave a lady the wrong dose of insulin. I gave her too much. I sat with her all day and all night, checking her blood sugar and trying to look calm. The next day I heard



Nancy Furstenberg, photographed in 1970 for the *Flint Journal*

Photo: Bill Wood



Tyra McKinney

her telling someone, 'She's the most wonderful doctor! She sat at my bedside all night!' and I thought, 'What a fraud I am.' I just sat there praying and checking and giving her sugar and that's when it hit me: this was down to the nitty-gritty. My mistake and her life. And from then on I was a much better doctor."



Tyra McKinney has perhaps the most difficult job of all. Her dual roles as single mom of seven-year-old Hattie and third-year family practice resident combine for a life where spare, unscheduled minutes glint like gold. Still, like all the doctors we spoke to, the thrill of this work ultimately seems to balance out the stress.

"The hours are extremely long. Sometimes you're working maybe 36-hour shifts. On call, post-call...it can be very intense. I have to leave Hattie with the babysitter, and it's hard. You have to try to put your mind to work, but in the back of your mind, you're wondering what your child is doing. I try to put that aside and trust she's in good care. I've had a lot of help from some great caregivers."

"It's actually a wonderful time," she says. "You're finally encountering patients. You have your M.D. badge. There are new situations and environments and you're trying to learn the system. It's exciting and rewarding. It's also frightening. But when you meet people and get to help them, it gives you a wonderful feeling of fulfillment. It's a scary thing: you don't want to do anything wrong — the Hippocratic Oath says 'Do no harm...' But I'm very happy to be here. I'm so grateful to have gotten to this point." 