

GM's Lancaster to Receive SAE's Medal of Honor

by Christine Snyder
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Tech Center News

Things can certainly change in 40 years.

But for Dr. David Lancaster, his quest for knowledge – and the fun he has had obtaining it – hasn't changed in the almost four decades he has been employed at GM and involved at the Society of Automotive Engineers (SAE).

SAE International will present Lancaster, a technical fellow in engine development for GM, with its most prestigious award, its Medal of Honor.

The award will be presented at the 2011 SAE World Congress, which takes place April 12-14 at Cobo Center.

Lancaster started work at GM Research in 1972 while still completing his dissertation. During his early months on the job, he was encouraged to get involved at SAE's Detroit section, which he did. "For SAE, it's been a long history," said Lancaster, who has held leadership positions at the organization and won their Horning Award for his work on fuels and engines in 1976.

He has had a long history at GM as well.

He spent his first 26 years at GM Research in spark ignition combustion and direct injection engines.

"It's amazing to me, the technologies that we worked on at Research 30 and 40 years ago are commonplace today," said Lancaster. "I think the first paper I wrote was on cylinder pressure measurement, and today we use that as a routine tool in all our development work. Direct injection now is commonplace on all our products."

"Technically, it's been a



Dr. David Lancaster of GM Powertrain.

great place to work and a lot of fun."

Lancaster was transferred from Research to GM Powertrain in Pontiac in 1999 where he worked on engine architecture, and then engine development.

"I'm in a great position now," said Lancaster. "I just get to do things that are fun, like investigate other people's products and work on new techniques for testing our own. We have a brand new lab here that we built in the last few years and I feel like a kid in a candy store."

"After almost four decades with GM, it's like being a young engineer to go out there and play with all the toys."

It's an especially exciting time for Powertrain – with technology changing so fast – and for GM as a whole, said Lancaster.

"I'm excited for the corporation," he said. "One of the things that's impressed me in the four decades I've been here is the high quality of the people I work with. I can say with virtually no exceptions, the quality of people I worked with has been of good, com-

'Crazy Swede,' 'Karnage' Lead SHR Dodge Racing

AUBURN HILLS – Two-time champion Samuel Hubinette is set to unleash a one-two Dodge punch on the Formula DRIFT (FD) Series in 2011.

The "Crazy Swede," who returns for a second year of dual owner and driver roles, will drive his own Samuel Hubinette Racing (SHR) Motorsports Dodge Challenger, while new teammate, European ProDrift champ Dean Kearney will pilot the SHR Dodge Viper SRT10, sponsored by V-LEDS-Federal.

Dodge Motorsports will again serve as primary sponsor for Hubinette's Challenger. V-LEDS will take the primary sponsorship role on Kearney's Dodge Viper SRT10, while veteran Brad Manka will return as crew chief for both SHR machines.

"We're very excited about the upcoming season and can't wait to get to Long Beach," said Hubinette, who earned two FD championships in his first three seasons, including the series' inaugural year in 2004.

"The SHR Dodge Challenger should be even more formidable with a year of competition under our belt, and Dean Kearney is a talented, young driver who will surely be competitive right out of the gate in the SHR Dodge Viper SRT10," said Hubinette.

"I'm also very grateful to continue important relationships in 2011 with sponsors such as Dodge, BFGoodrich, and welcome in new sponsors, including Discount Tire

and V-LEDS. We intend to repay their support by putting on the best drift show we can and by bringing home some victories and competing for a championship."

Kearney is more than ready to join Hubinette in the SHR spotlight. The 22-year-old native of Waterford, Ireland, nicknamed "Karnage" is an accomplished driver, having captured the 2009 European Pro Drift Championship.

"This is a perfect fit for me, and I feel right at home with Samuel and the whole SHR family," Kearney said. "With driver nicknames 'Crazy Swede' and 'Karnage,' fans are going to quickly see SHR as one of the most exciting teams in all of drifting this season."

Dodge is looking forward to another successful season of drift competition.

"Samuel brings a ton of passion and experience to everything he does for Dodge, so we're excited to be back with Samuel Hubinette Racing in 2011 and look forward to the arrival of a second champion, Dean Kearney in the SHR Dodge Viper," said Bryan Viger, Head of Dodge Motorsports.

"We can't ask for a better team to represent Dodge and Dodge Motorsports in the Formula DRIFT Series."

Jake York, president and CEO of new team sponsor V-LEDS, one of the largest automotive LED replacement bulb retailers in the world, shares the enthusiasm as the 2011

season opener approaches.

"We can't wait to see our logo on the SHR Dodge Viper SRT10," York said. "Dean is sure to quickly let loose on the Streets of Long Beach and we look forward to the start of the season and developing a long-term relationship with SHR."

Hubinette, Kearney and SHR kick off their season in the 2011 FD Round One event on the Streets of Long Beach, Calif., April 8-9.

The season continues at Road Atlanta, Braselton, Ga., May 6-7; Palm Beach International Raceway, Palm Beach, Fla., June 3-4; Wall Speedway, Wall, N.J., June 17-18; Evergreen Speedway, Monroe, Wash., July 22-23; Las Vegas Motor Speedway, Aug. 26-27; and Irwindale, Calif., Oct. 7-8.

A native of Jokkmokk, Sweden, Samuel Hubinette is a two-time drifting champion and also a Rally Cross X Games bronze medalist. He has competed in various off-road races, including the Ba-

ja 1000 and also has a history in road racing.

When he isn't competing professionally, Hubinette rides motorcycles and works as a stunt driver in car commercials and in Hollywood productions.

Hubinette developed a taste for speed in his native Sweden, where he earned a reputation for pushing snowmobiles, motorcycles and cars to their limits.

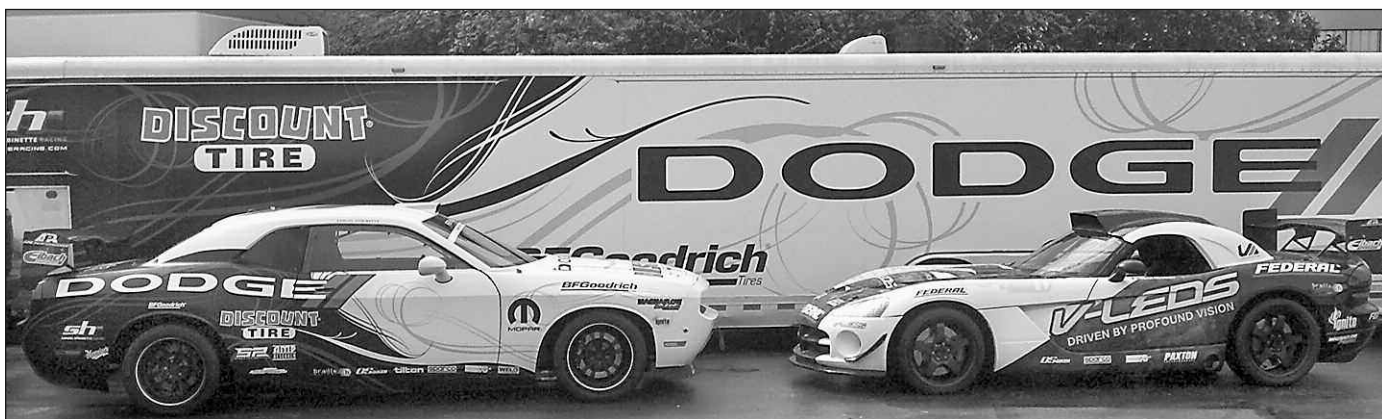
He competed in Touring Car with Volvo from 1997 through 2000 and worked for Volvo Cars for nine years as a test driver in product development.

He has also worked as a performance driving instructor including a three-year stint at the Skip Barber Racing School, where he was a member of the elite Special Product Group.

Hubinette and his wife Stina recently welcomed baby daughter Stella into their household in Newport Beach, Calif.



The Samuel Hubinette Racing (SHR)/Dodge Motorsports Dodge Challenger on the track.



Samuel Hubinette Racing (SHR) brings a one-two Dodge punch to the Formula DRIFT Series in 2011. Two-time champion Hubinette will drive the SHR Dodge Motorsports Dodge Challenger, left, while new teammate and European ProDrift champion Dean Kearney will pilot the SHR Dodge Viper SRT10, right.

Michigan Added 71,000 Jobs in '10, First Job Gain for State in Decade

WASHINGTON (AP) – U.S. companies have added jobs for 12 straight months, but the gains across the country have been uneven and a little surprising.

California and Michigan, which each suffered some of the worst job losses during the recession, are adding jobs again. California last month had its single best month for job creation in more than two decades.

Still, six states lost jobs from February 2010 through last month, including Kansas and New Jersey, states that weren't considered troubled spots.

Overall, 44 states added jobs in that stretch, one of the best year-over-year showings since the recession ended. And the unemployment rate has fallen in 41 states, the Labor Department said last week.

Last month, the unemployment rate dropped in 27 states, compared with the previous month. It rose in seven states and stayed the same in 16. That's the most states to report a drop since last June, when many states were still benefiting from census hiring.

Nationwide, employers have added 1.3 million jobs from February 2010 through last month.

California, which was still losing jobs as recently as September, has added nearly

200,000 jobs in that time. That's second only to Texas, which added 254,200 net jobs. Nearly half of that increase in California occurred in February, when the state gained 96,500 jobs. That's the most on records dating back to 1990.

"California . . . has been lagging the United States a bit, but it seems to be catching up this year," said Jerry Nickelsburg, senior economist with the University of California, Los Angeles' quarterly Anderson Forecast.

The state has seen big gains in shipping, software development, technology and food processing jobs, Nickelsburg said. The boost in hiring occurred even as government at all levels cut more than 60,000 jobs.

Michigan, meanwhile, added 71,000 jobs last year. That's the first sustained job gain the state has seen in the past decade, said Sophia Koropecy, a managing director at Moody's Analytics.

Michigan's unemployment rate has plummeted from 13.5 percent to 10.4 percent, the biggest drop in the nation. Half of the decline reflects a large drop in the state's workforce. Once unemployed workers give up looking for jobs, they are no longer counted as unemployed.

AP Writer Jacob Adelman contributed to this report from Los Angeles.

EPA Tabs AVL for Testing

PLYMOUTH, Mich. – Emissions testing supplier AVL announced last week that it has been awarded a contract by the Environmental Protection Agency (EPA) for critical automotive emissions testing to take place at the EPA's National Vehicle and Fuel Emissions Laboratory in Ann Arbor.

As a result of the Renewable Fuel Standard program, increased emphasis will be placed at the EPA Lab on testing vehicles operated on renewable fuels at both cold-temperature and high-temperature conditions.

Specifically, the EPA contract covers Sampling, Analytical and Automation Equipment for the new Cold Test and SC03 Vehicle Emissions Test facilities.

"As a company that fully supports the Clean Air Act

and the EPA's dedication to protecting our nation's air quality, we are proud to have been chosen to work on this industry-changing initiative," said Don Manvel, AVL chairman and CEO.

For this initiative, the EPA selected AVL to provide its latest iGeneration technology in fully automated emission, sampling and measurements instrumentation to test a wide range of vehicles under various climate scenarios simulating real-world conditions.

Founded in 1948, Plymouth-based AVL is the world's largest independent company for development, simulation and testing technology of powertrains (hybrid, combustion engine, transmission, electric drive, batteries and software) for passenger cars, trucks and large engines.

High Gas Prices Spur Demand for Ford Alt Vehicles

DEARBORN – Higher fuel prices, increasing government incentives and more fueling stations are spurring interest in compressed natural gas-powered commercial vehicles offered by Ford Motor Company.

Consider Metro Taxi of West Haven, Conn., which soon will take delivery of 20 Transit Connect Taxis powered by CNG. Owner Bill Scalzi said he bought the CNG-powered Transit Connect Taxis because of rising gas prices, government funding and the fact that there will soon be more CNG fueling stations in Connecticut, including one he is adding to his facilities.

Scalzi is not alone in wanting to own natural gas fueled vehicles as orders for CNG Transit Connect Taxis are coming from companies in places like Las Vegas, St. Louis, Boston, Chicago and Hartford, Conn.

"Fleet managers are adding all the reasons up and concluding that it makes sense to switch to CNG now more than ever," said Rod Phillips, Ford Commercial Business Manager of the New England area.

CNG is made by compressing natural gas, which is mainly composed of methane. It is stored and distributed in hard containers at a pressure of 2,900 to 3,600 psi. About 85 percent of the CNG used in the United States is produced domestically.

CNG is used in traditional gasoline internal combustion engines that have been modified to operate on CNG. In addition to Transit Connect Taxi, CNG is an option for Ford E-Series vans and F-Series Super Duty trucks.

First, CNG is a nontoxic, extremely clean-burning fuel and significantly reduces CO, CO₂ and NO_x compared with gasoline. According to the U.S. Environmental Protection Agency, use of CNG can result in 30 to 40 percent less greenhouse gas emissions.

"The ability to convert the Transit Connect to CNG is a big driving force for us," said J.J. Bell, vice president of Las Vegas-based Whittlesea Blue

Cab, which has ordered Transit Connect Taxis powered by CNG.

"We are converting more and more of our fleet to this alternative fuel."

Another benefit is cost. According to the U.S. Department of Energy, between September 2005 and January, the price per gallon equivalent of CNG peaked at \$2.34 in the summer of 2008.

The national average was \$1.93 in January 2011, the same as it was in October 2010. That's important at a time when the price of gas is flirting with \$4 per gallon.

"Every time fuel costs start climbing, the level of interest in alternative fuels increases," said Carla York, CEO of Reston, Va.-based Innovation Drive Inc., a company that manages alternative fuel-related projects.

She said her organization receives 12 to 20 percent more calls with every 50-cent increase at the pump.

An additional benefit is the amount of funding available. Government incentives such as rebates or tax credits are

prompting fleet owners such as Scalzi to buy or convert their vehicles to run on CNG at reduced rates.

For example, the federally funded Clean Cities Petroleum Reductions Program is providing \$300 million in funding to regional projects across the United States. One project is the Connecticut Clean Cities Future Fuels Project, which partially covers the costs of converting a vehicle to CNG. That project alone plans to provide funding for a total of 264 alternative-fuel vehicles.

"Without the help of the government program I wouldn't have been able to purchase so many CNG-powered Transit Connect Taxis at one time," Scalzi said. "I like the Transit Connect Taxi for its spacious passenger area and cargo capacity, so the government assistance was timely."

The incentives also are helping fund construction of CNG fueling stations. Nearly 1,000 CNG fueling stations are now spread across the United States.

As a result, cities such as

Tampa, Fla., and St. Louis soon will have their first public CNG stations.

Gerald Koss, marketing manager for Ford fleet operations, said Ford anticipated the infrastructure to support CNG vehicles would evolve and remained committed to its plans to bring CNG-powered commercial vehicles to market – even during economically challenged times.

"We took the chance that infrastructure would expand when we introduced our Transit Connect Taxi CNG capability in advance of any incentives for infrastructure or CNG conversions," said Koss. "It turns out our timing couldn't have been better."

Ford has invested billions in researching and developing new fuel-efficient engines, transmissions and electrified vehicles, even during the depths of the economic downturn when competitors dialed back product spending. Today Ford has 12 vehicles with best-in-class fuel economy and four models with at least 40 mpg – claims no other full-line automaker can match.

USABC Awards Work to A123 Systems

SOUTHFIELD – The U.S. Advanced Battery Consortium, LLC (USABC), an advanced research collaboration among GM, Ford and Chrysler, announced last week an \$8 million advanced battery development contract with A123 Systems, Inc., of Watertown, Mass.

The competitively bid contract award is co-funded by the U.S. Department of Energy and includes a 50-percent cost-share obligation by A123 Systems.

USABC awarded the 24-month contract to A123 to continue developing its Nanosulphate lithium ion battery systems to meet USABC's target application for a Power-Assist Hybrid Electric Vehicle (PAHEV) Low-Energy / Energy Storage System (LEESS).

The new LEESS requirements call for a smaller, lighter, lower-cost battery cell with higher regenerative pow-

er capability, lower energy and improved cold-crank capability.

"We are pleased to announce the award of this contract to A123 Systems as part of USABC's broad battery technology research and development programs," said Steve Zimmer, executive director for USCAR.

"These programs are essential to advance the technology needed to meet both near- and long-term goals that will enable a broad spectrum of vehicular electrification."

The new contract with A123 Systems is the company's third such development contract with USABC.

In 2006, USCAR announced a \$15 million, 36-month battery development contract with A123 to develop its Nanophosphate battery technology.

A second \$12.5 million technology development contract

for plug-in hybrid electric applications was announced in 2008. The USABC consortium is based in Southfield.

Meanwhile, the U.S. Dept. of Energy's overarching mission is to advance the national, economic and energy security of the United States.

DOE's Vehicle Technologies Program works with industry, academia and national laboratories to develop advanced transportation technologies that reduce the nation's use of imported oil and increase its energy security.

Electrochemical energy storage has been identified by the DOE and its industry and academic partners as a critical enabling technology for use in advanced, fuel-efficient, light and heavy-duty vehicles.

Founded in 1992, USCAR is described as a pre-competitive auto technology organization advancing the interests of GM, Ford and Chrysler.