Metamorphosis

......the courage to change

A pictorial journey of the Pioneering efforts of the Mentors and Masterminds of Endocrine Surgery

A Photobiography

Recollected from the Memoirs & Memory card of Dr M.S. Senthil Kumar

DEPARTMENT OF ENDOCRINE SURGERY
MADRAS MEDICAL COLLEGE, CHENNAI.
SILVER JUBILEE COMMEMORATIVE ISSUE
Tribute to the Teachers and Men of STATURE

Prof. B. Premkumar Teacher to Prof. M. Chandrasekaran

Prof. S. Vittal, Founder of the Department of Surgical Endocrinology

Prof. N. Rangabashyam, Founder, Surgical Gastroenterology

On Teachers’ Day, September 5th, 2009, SELSI Conference
Last night, thinking of my teachers, one tear rolled out, I asked why are you out? Tear said you are holding lovely people in your eyes, there is now no place for me.

- dr. m.s.senthilkumar

Dedicated to all my Teachers and especially to my mentor Prof. M.Chandrasekaran

The world’s most incredible computer........
The Brain
The most beautiful attire....................
SMILE!
The most prized possession...............Integrity
The most contagious spirit................Enthusiasm
PATRONS

Alpha-Phase Transformation:
Make the Decision and generate Resources
Catalyst

Delta-Phase Transformation:
Achieve a New Plateau of Performance & Determine Next Level
Guide & Regulate

Beta-Phase Transformation:
Develop a Vision & Schematic Model
Visionary

Gamma-Phase Transformation:
Transform & Sustain
Architect

PATRONS

Dr. J. Radhakrishnan IAS
Secretary to Government, Health and Family Welfare

Dr. V. Kanagasabai, MD
DEAN, Madras Medical College

CONTRIBUTORS: Dr. V.Sucharita, Dr. M.S. Senthilkumar, Dr. R. Emmanuel

CONCEPT- Creative Minds unltd

LAYOUT AND DESIGN -
R. Sivakumar, sivainadvt@gmail.com
Gopalapuram, Chennai-86.

Acknowledgements
To all the surgeons, staff and students who have toiled to transform a single Surgical Endocrinology unit to a full-fledged Department of Endocrine Surgery

Communications: medisen@gmail.com

EDITORIAL OFFICE

COMPiled AND EDITED by
Dr. M.S.Senthilkumar

PRO CHANCELLOR

Dr. Mayilvahanan Natarajan,
M.S., D.Ortho., DSc., PhD
Vice Chancellor

Dr. Mayilvahanan Natarajan,
M.S., D.Ortho., DSc., PhD
Vice Chancellor
"Righteousness is a great achiever; it affords wealth and stature in life"

Valluvar: 4:31 Aran

Life is not measured by the number of breaths we take, but by the moments that take our breath away

- Maya Angelou

I am blessed with the best teachers and fortunate indeed to write about them. This is a rare privilege of a transformed mind to travel backward down the memory lane.

My association with these Masters goes well beyond two and a half decades.

In the end it is the long lasting association that matters—not the transient dissociation.

From the rank of a Professor I have become prolific Postgraduate and Phd student and my life has taken a taciturn like, “The curious case of Benjamin Button”.

I have just accelerated the pace to stretch it back to my student days.

I close my eyes and open my mind to those fond memories and REJOICE about the MOMENTS THAT TOOK MY BREATH AWAY.

- Dr. M.S. Senthil Kumar
THE WORLD IS NOW A GLOBAL VILLAGE

The years of toil has borne ripe fruits of wisdom which needs to be compounded and shared. What you learn - SHARE, What you get GIVE

The world is after all a Global Village

Theodor Kocher is a fortunate Surgeon who is well known around the globe. Equally illustrious by way of contributions to the field of Endocrine are

- Julius Bauer (constitutions -pathology, the thyroid and the adrenals),
- Tophile de Bordeu (the ‘Father of endocrinology’),
- G M Besser(prolactinomas),
- Geoffirey WHarris (one of the founders of modern neuro-endocrinology),
- Thomas Wilkinson King (structure of the thyroid),
- Nicola Pende (neuroendocrinology),
- Hans Heller (neurohypophysis),

To these list of the handful of Princes among men we need to add our own founding fathers and Godfathers

Prof S.Vittal is widely acclaimed as the father of Surgical Endocrinology
Prof. M.Chandrasekaran is accepted as the Godfather of Endocrine Surgery
Prof S.K.Mishra & Prof M.Chandrasekaran are acknowledged as the founders of MCh Endocrine Surgery Course.

These LEGENDARY TEACHERS & MEN OF STATURE and their radiance under the spotlight should not blind us from the other committed and dedicated surgeons who played a undaunted supportive and sacrificial role.

It is perhaps my PRIVILEGE, PRESTIGE PRIDE to bring to limelight

Prof. V. Sucharita-Associate Professor,

Prof R.V.Suresh & Prof N.Dorairajan who had a long innings as Asst. Professor

Prof. Kuberan & Dr.M.S.Senthilkumar, Asst Professors for MCh Endocrine Surgery course,

Prof. Thirunarayanan & Dr. Singaravelan Sridhar

Prof Jeerarathnam & Dr Rukmanganthan,

Dr. Zahir Hussain & S.Dhalapathy currently Asst. Professors, Endocrine Surgery

And many more to come and go and contribute.........................

With Prof. Geoffrey B. Thompson, M.D.,
Secretary-Treasurer
International Association of Endocrine Surgeons

Geoffrey B. Thompson, M.D.
Mayo Clinic
Department of Surgery
Mayo 12-81W
200 First Street SW
Rochester, MN 55905
USA
Prof. Sivapatham Vittal was so interested in the field of Surgical Endocrinology that he dedicated himself for more than a decade in establishing the OPD with the approval and guidance of his mentor Prof. R. Sarathchandra.

He gave up his general surgical practice at the peak of his surgical career to pursue his passion - Surgical Endocrinology.

Prof. M. Chandrasekaran is a perfectionist-who perfected the art of Thyroid Surgery and recorded it systematically with his secondary passion-photography.

His primary passion was Endocrine Surgery so much so he developed the field with single minded devotion like Arjuna’s aim without traveling out of his fortress, Madras Medical College and accomplished his mission - MCh Endocrine Surgery course.
Prof. M. Chandrasekaran started the innovative breakfast meeting in Endocrine Surgery which was terrific hit among students and the younger among the faculty.

Little did I know then that he had in his own charming way assembled a small but powerful team to build Endocrine Surgery.

Seen below is the dream team on the occasion of one such breakfast meeting.

Dr. Manjula Bansal
Cornell University
USA
To My Guru
Prof. M. Chanderasekaran taught me how to hold and handle the “knife” – my initiation to a very fulfilling surgical career. My very first association with him was when I was a final year medical student at the Madras Medical College and we were not only impressed with his “no nonsense” approach to thyroid but also how his car was exquisitely maintained. While the latter may seem unrelated it spoke of this great teacher’s attention to detail in everything he did.

I still remember the very first day I started my surgical career in the Department of Endocrine Surgery with a stomach full of butterflies but he took me under his wing and made me feel at ease. But my first harsh lesson came very soon when I arrived at 8:45 am one day to find him already in the ward working and he asked “Are YOU the Asst. Professor or is it me?” – I vowed never to let it happen again, a decision I carried throughout my training years and it has paid rich dividends.

One of his admirable qualities (of which there were many) was he always listened to your point of view even though you were the most junior member of the team. Prof MC always encouraged independent thinking in all his trainees a concept which led us to challenge him all the time and he loved that! I couldn’t say that about many other seniors who I trained under.

At the completion of my six month training in Endocrine Surgery I was able to do thyroidectomies on my own – I still remember his remark “look at this trainee he can’t do a hydrocele but can do a thyroidectomy!” Such was the caliber of his training that he could take the most untrained individual and make a surgeon out of him, but then he would remark I was able to achieve it because I am “trainable”. Essential qualities to be trainable are the willingness to work hard and being resilient when one faces failures – an important concept for the surgical trainees.

I spent a hard one year going to various places in India taking exams for M Ch Surgical Oncology and finally achieved it in November 2001 and spent the evening before my first day at the Royapettah hospital with Prof MC listening to his words of wisdom. I wrote them down in my diary as soon as I got back and cherish them to this day. I wish I can proudly say that I practiced each and every one of them all the time but that would be untrue, instead I recount them here so that other trainees can benefit from them.

1. You chase quality and everything else (meaning the good things in life) will chase you.
2. Never lay emphasis on money more than service – even when you badly need money.
3. It’s better to crawl in the right direction than to speed without direction.
4. Never get irritated with your patients.
5. Never think too much of yourself, always be humble. Remember “I only dress the wound, God heals it”.
6. Treat the patients as you would your own parents.
7. Never compromise on quality.
8. Never play for the gallery.
9. Look into yourself at least once a week. This INSIGHT is very vital if you are to improve.

Muzib Abdul Razak, DNB, FRCSE, FRACS, M Ch (Surgical Oncology)
The Author is a Surgical Oncologist and Head and Neck Surgeon practicing as a consultant at the Westmead Hospital, Sydney Australia.
Letters from old students of Endocrine Surgery Ward

I Dr. S. Guru Balaji, am a urologist. I have recently returned from UK after a fellowship in laparoscopic urology. I have a long association with Prof. M. Chandrasekaran since my training days.

The department of Endocrine surgery at the Madras Medical college is now celebrating its silver jubilee year. I along with my brother had the pleasure of travelling through this department during our journey for surgical training.

The department under Prof. M. Chandrasekaran not only taught us about surgery but also many other invaluable lessons like probity, time keeping, discipline and also gave us a lot of confidence (not to forget photography). We were academically very active conducting CME’s on various endocrine topics which attracted delegates from various medical colleges. We also had the privilege of assisting the Professor in bringing a few editions of Annals of endocrine surgery (Prof was the chief editor then). All these have definitely helped in shaping us not only as good surgeons but also has contributed immensely to our overall development.

S. Guru Balaji

A mentor par excellence

It was the summer of 1997 one of those usual hot humid summers of Chennai with Madras Medical College and its red fort basking in the glory of the blazing sun. Fresh from a year and half spent in the hallways of the cardiothoracic surgical department I was sent back to the General surgery wards to complete my DNB training in General surgery. Having operated in plenty over the last year I was eager to dive deep into the abdomen and explore its last frontiers, but the hierarchy and redundant training system made it difficult to breach those barriers and grab as many cases irrespective of all the sleepless nights spent on admitting days waiting for an appendectomy or a perforation.

It was in this formon environment that I ran into Prof. MC as we all fondly still call him in one of his classes for the surgical residents. The department was a small happy unit in ward 34 on the second floor with all the cross winds one could want to keep it cool. The staff and teachers of this unit made it feel welcome and suddenly life was looking up, I realized sky was the limit to what I can learn here as long I am willing to put in the hard work.

I set out as the lone resident in the department of surgical endocrinology with two operating days a week and atleast four or five thyroid cases per list. First day OT was an eye opener I clearly realized that it is the surgeon who makes the operation look easy and not the operation itself. I learnt a lesson in surgery that I still repeat to today my trainees and hold dearly to my heart

speed in surgery is doing one step once and well

FNAC’s were like an assembly line with patients lying on all the bed in position and we go jab jab and squirt onto the slides which get processed asap and lo and behold we already have a diagnosis pronto! The famous recurrent laryngeal nerve that was always elusive to many a surgeon was somehow staring at our faces on a regular basis. I wondered how big was this unexplored pandoras box that my other colleagues were missing out on.

It is still one incident that stands out, something that I am yet to see any teacher do in all my training here and in the USA. It was 47 year old lady from down south who was admitted with a right pheochromocytoma and those days adrenal meant big surgery and major drama. I was asked to prepare the patient for a right adrenalectomy and plan the procedure. I did as taught and the D-day came with all its hype, I spoke with the cardiothoracic surgeons saying we are planning a right thoracoabdominal approach and hence need there help, with a year of cardiac surgery behind me I was told to start as they would join. I was joined for the case by my best friend and critic Dr. Muzib also an ex-surgical endocrine resident. Professor scrubbed in as we were setting up the final assault on the adrenal gland and guided us through the end of the surgery, I stood there grinning from ear to ear still trying to digest what happened. In a setting where getting basic procedures was itself not a frequent happening here I was doing an Adrenalectomy under guidance skin to skin. That day as we went back to the wards and college, along the way we were congratulated by colleagues and teachers on doing the case that we realized how proud he was of us, even today this brings tears to my eyes and a sense of pride. To me this was a life changer.

A mentor par excellence he always told us there are two ways to learn surgery

1. From making your own mistakes — the harder way!!
2. From seeing others mistakes and avoiding them – the easier way

Everytime we thought we learnt it all he came up with something new, never stopped improvising and innovating a quality I have tried hard to emulate. My time at the department taught me not only the nuances of surgery but also what attention to detail means for a surgeon. One of his famous lines to us was “ Don’t be a surgeon be an operating physician” today in real life practice I realize how important this statement is and how deep are its implications. The department taught me the what a good mentor can do to us residents and today I am what I am for all that this wonderful unit taught me and I strive to teach the same to my trainees.

Today it gives me immense pleasure and happiness to see this alma mater of mine complete twenty five years of glory and more importantly hold its high standards through this illustrious period. I am sure it will shelter produce many more such mentors for us young surgeons such is its pedigree.

Dr. Mohammed Rehan Sayeed

The author is an alumnus from the Harvard University and Cleveland Clinic Foundation with special interest in minimal access cardiac surgery with over a few thousand minimal access procedures and many firsts in cardiac surgery in India to his credit. Currently he is a Senior Consultant Cardiovascular & Thoracic surgeon at Fortis Hospitals, Bangalore, India.
The Transformation
The Gamma Phase Transformation

Prof. V. Sucharita,
Associate Professor, Department of Endocrine Surgery
Transfers a flickering flame into a steady light

Dr. M.S. Senthil Kumar & Dr. K. Kuberan
Asst. Professors Department of Endocrine Surgery
Rocksteady - cool, calm & composed

Dr. Jayakumar
Research Associate
A pillar of support
During the foundation of MCh course

Prof. M. Chandrasekaran,
Mercurial,
Cautious & Correct

Prof. Jecinth, Prof. Shantha & Prof. Ramadevi
DEPARTMENT OF ENDOCRINE SURGERY

CHRONOLOGY OF EVENTS

1977  Prof. R. Saratchandra, Prof. of General Surgery starts Surgical Endocrinology OPD
1986  Reader Post in Surgical Endocrinology created
1987  Surgical Endocrinology department started with 1 Reader & 1 Asst. Professor. Prof. S. Vittal assumes charge and starts department with Dr. M. Chandrasekaran
       Surgical Endocrinology department started with - Prof. S. Vittal, as head
       FNAC-Fine Needle Aspiration Cytology started by Dr. Nagarathinam for 1st time in India
1988  30 beds upgraded with 1 lab technician and 4 dedicated staff nurses one more Asst. Professor Dr. Thirunarayanan joins and subsequently replaced by Dr. N. Dorairajan after 6 months
       2nd Annual Scientific Conference of Thyroid Association of India held on 6 & 7 Feb. 1988 at of Madras Medical College
1989  British Association of Endocrine Surgeons Scientific paper presented on Dyshormonogenetic Goitre Prof. S. Vittal and Dr. M.Chandrasekaran attend LILLE, France conference
1991  Emphasis on reducing morbidity in Thyroid Surgeries
1994  IAES first Mid-Term conference madras Medical College, Chennai. 9th and 10th July
1995  Open Adrenal Surgeries performed
1996  Thyroid OPD strength increases
1997  Post MBBS Students enrol
1998  Academic Activities increase in 1999
1999  Prof. S. Vittal lays down office & Dr. M.Chandrasekaran, becomes Professor Prof. R.V. Suresh joins as Asst. Professor. Professor N.Dorairajan join as Professor of General Surgery and Dr.V.Sucharita joins as Asst. Professor
2000  Operation Theater shifts to speciality block, Live demonstration of Thyroidectomy performed in National OTORHINOLARYNGOLOGY conference held at Government General Hospital
       Indian Journal of Endocrine Surgery (IJES) was published from our department with Prof.M.Chandrasekaran as Editor in Chief and Prof.V.Sucharita as Associate Editor for three consecutive years. (2000, 2001 & 2002)
2001  More Enthusiastic Post M.B.B.S., Students enrolled
2002  Break Fast meeting of Endocrine Surgery department started. Dr. Manjula Bansal from Cornell University, USA delivers lecture on Metabolic Bone Diseases
2003  OPD Strength increases by Leaps and bounds
2004  Prof. V.Sucharita promoted as Reader in General Surgery and Dr. K. Kuberan joins as Asst. Professor
2005  Tower Block inaugurated and Endocrine Surgery Department moves to Ward 135
2006  Plan for MCh Endocrine Surgery course mooted. Dr. Jayakumar joins as Research Associate

Indian Journal of Endocrine Surgery (IJES) was published from our department with Prof.M.Chandrasekaran as Editor in Chief and Prof.V.Sucharita as Associate Editor for three consecutive years. (2000, 2001 & 2002)
DEPARTMENT OF ENDOCRINE SURGERY

CHRONOLOGY OF EVENTS

2007  Change of nomenclature from Surgical Endocrinology to department of Endocrine Surgery according to MCI norms. As per GO MS 297 DT 13 11 2006

Dr. R.V. Suresh moves out to join MCh Cardiothoracic surgery course &
Dr. M.S. Senthil Kumar joins as Asst. Professor.
MCh Endocrine course started.
Dr. R. Nagarajan joins MMC Endocrine Surgery department as 1st Post Graduate
Indian Journal of Endocrine Surgery (IJES) was published from our department with
Dr.M.S.Senthilkumar as the Editor in Chief

2008  TNASICON-2008 live relay of Thyroidectomy from Endocrine Surgery Department by Professor M.Chandrasekaran, assisted by Dr. M.S. Senthilkumar, Joint Secretary TNASI
Hormone Newsletter released from the department of Endocrine Surgery by
Editor-in-Chief of IAES Dr. M.S. Senthilkumar.
'Differentiated Thyroid Carcinomas - 2 decades experience' paper presented at IAESCON
Endocrine CME organised by Prof. M.Chandrasekaran, HOD, Department of
Endocrine Surgery - Prof. S.K. Mishra and Prof. Mohanty participates
Prof. M.Chandrasekaran gets elected as IAES President for 2009.

2009  1st International Endoscopic Endocrine workshop organised by Department of Endocrine
Surgery organised by Prof. M.Chandrasekaran,Chairman and M.S.Senthilkumar, Secretary
Live Demo of Minimal Access Procedures in Thyroid, Para Thyroid, Adrenal,
Pituitary shown.
Prof. Miccoli, Prof. Berti from Italy and Prof. M.C. Mishra from AllIMS
demonstrate procedures
175th Year celebrations of Madras Medical College was organised by the Department of
Endocrine Surgery with SELSICON conference on September 4th & 5th Savera Hotel, Chennai.
FAES fellowships of IAES - for Prof. M.Chandrasekaran, Dr. M.S.Senthilkumar

2010  MCh Exams - Dr. R. Nagarajan graduated as 1st MCh Post Graduate
FRCS (Glasg) bestowed - Prof. M.Chandrasekaran, Surgical Services
FAES fellowship of IAES - for V.Sucharita

2011  Dr. Zahir Hussain graduates and joins as Asst. Professor vice M.S. Senthil Kumar joins
as MCh Post Graduate
Endocrine CME resumes
FIMSA fellowships of International Medical Sciences Academy for Prof. V.Sucharita,
Dr. Zahir Hussain and Dr. M.S. Senthilkumar

2012  Endocrine CME on Toxic Thyroid Diseases - March 2nd Sunday
Endocrine CME on Thyroid Ultra Sound - May 29
Inter-Institutional Rounds - 1, MMC-CMC at RGGGH, Chennai.
Inter-Institutional Rounds - 2, CMC-MMC at Vellore
Inter-Institutional Rounds - 3, MMC - DUESBURG, Germany, July 19th
Endocrine CME Prof. Martin Walz delivers lecture on Lap Adrenalectomy-Posterior approach
Inter-Institutional Rounds with All India Institute of Medical Sciences, HOD, Prof.M.C.Misra
IDEA Clinics - Interdisciplinary Endocrine Allied Clinical Workshop - October 16th
Endocrine CME with Prof. M.C. Mishra, Prof. Kumaresan, Prof. Anil D'Cruz,
Prof. Aravindan Nair
The first conference of the IAES was organised by this Department in the year 1994.
Prof. Michel Arul Doss of ALMudaliyar Institute of Bio Medical Science, Taramani conducts the research in co-ordination with Prof. M. Chandrasekaran and has brought out numerous research papers in Thyroid Cancer Biology.

Dr. M.S. Senthil Kumar along with Prof. M.Chandrasekaran was awarded the CSIR GRANT of the Council of Scientific and Industrial Research which was utilised for organising the 1st National Endoscopic Endocrine Workshop involving International faculty Prof. Micolli & Prof. Berti in Madras Medical College, 2009.

Dr. Himagirish K. Rao has received the TAMILNADU MGR MEDICAL UNIVERSITY GRANT for the year 2011 for his study, guided by Prof. M.Chandrasekaran, HOD, Endocrine Surgery

Dr. K.Poongkodi has received the ICMR GRANT for her Thesis guided by Prof. M.Chandrasekaran in the year 2012.
DELEGATES FROM KOREA
Prof. MC laying the foundation stone of Tower Block

MADRAS GENERAL HOSPITAL.

MADRAS GENERAL HOSPITAL WAS FOUNDED IN THE YEAR 1664, REBUILT IN 1692, DEMOLISHED AND REBUILT IN 1711, REMOVED IN 1753, EXTENDED IN 1859, 1874, 1884, 1894, AND 1897. REMODELLED IN THE YEARS 1928–1938.

Remodelled 2005
Honourable Chief Minister of Tamilnadu Inaugurating the Tower Block in 2005
Prof. M. Chandrasekaran greets the Honourable Chief Minister of Tamilnadu
THE SUCCESSION
Beyond MCh -
The Delta Phase Transformation
INTER-INSTITUTIONAL ROUNDS

CMC @ MMC

MMC @ CMC

1

2
Inter-Institutional ward rounds-3
MMC-CMC-University of Duesburg, Germany
Visiting Professor Martin Walz

Professor Martin Walz has Pioneered Posterior approach in Laparoscopic Adrenalectomy & has one of the largest series in the world.
Research in the Department of Endocrine Surgery

Research Project
Collaborative Research on Molecular Oncology between University of Madras and Madras Medical College
Prof. M. Michael Aruldas & Prof. M. Chandrasekaran

Proposed Research
Dual Degree MCh-PhD program was announced by the Tamilnadu Dr. MGR Medical University.
The following MCh Post-Graduates have been registered for the Dual Degree MCh-PhD program through proper channel

Dr. M.S. Senthil Kumar

Dr. K. Poongkodi

Collaborative Research on Molecular Oncology between University of Madras and Madras Medical College

Academic Achievements

<table>
<thead>
<tr>
<th>Name of the candidate</th>
<th>Title of the thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dr. J. A. Stanley</td>
<td>Gender specific expression pattern of androgen receptor gene in human malignant and non-malignant thyroid tumour tissues.</td>
</tr>
<tr>
<td>2. K. Annapoorna</td>
<td>Estradiol induces proliferation of human papillary thyroid cancer cells by activating the mitogen activated protein kinase (MAPK) signalling pathway through its specific receptor subtypes.</td>
</tr>
<tr>
<td>4. E. Suthagar</td>
<td>Expression patterns of Androgen receptor and thyroid stimulating hormone receptor mRNA in women Multinodular goitre tissues.</td>
</tr>
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M.Sc. dissertations (11)

<table>
<thead>
<tr>
<th>Name of the student</th>
<th>Title of the project</th>
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<tbody>
<tr>
<td>1. J. Faustina Therase</td>
<td>Expression patterns of Androgen receptor and thyroid stimulating hormone receptor mRNA in women Multinodular goitre tissues.</td>
</tr>
<tr>
<td>2. S. Heleena Karthik</td>
<td>Expression patterns of Androgen receptor and thyroid stimulating hormone receptor mRNA in women Hashimoto's thyroiditis tissues.</td>
</tr>
<tr>
<td>3. T. Sundararajan</td>
<td>Expression patterns of Androgen receptor and thyroid stimulating hormone receptor protein in human toxic multinodular goitre.</td>
</tr>
<tr>
<td>5. M. Sivarajan</td>
<td>Expression pattern of androgen receptor protein in male multinodular goitre.</td>
</tr>
<tr>
<td>6. S. Sharmila</td>
<td>Expression pattern of estrogen receptor alpha, beta and thyroid stimulating hormone receptor protein in male multinodular goitre.</td>
</tr>
<tr>
<td>7. K. Shamira Banu</td>
<td>Expression patterns of insulin like growth factor receptor 1 and insulin like growth factor binding protein 3 in female Hashimoto's thyroiditis tissues.</td>
</tr>
<tr>
<td>8. R. Sokula Priya</td>
<td>Androgen receptor CAG repeat length polymorphism in human Hashimoto's thyroiditis.</td>
</tr>
<tr>
<td>9. B. Mridhula</td>
<td>Androgen receptor CAG repeat length polymorphism in human toxic multinodular goitre.</td>
</tr>
<tr>
<td>11. M. Vaheeda Begam</td>
<td>Expression patterns of thyroid hormone receptor alpha, beta and thyroid stimulating hormone receptor protein in human Hashimoto's thyroiditis.</td>
</tr>
</tbody>
</table>

Training for MCh Post-Graduates at reputed Institutes

External Posting at TATA Memorial Hospital, Mumbai

The following Post-Graduates registered for the Dual MCh - PhD course and were posted to undergo Two Weeks training in Head-Neck Oncology

1) Dr. M.S. Senthil Kumar
2) Dr. K. Poongkodi

ONGOING PROJECT IN MMC
Dr. M.P. Kumaran
MCh Endocrine Surgery Post Graduate
is currently working on Voice Assessment Scoring System for Thyroidectomy patients
The following are the salient findings of the study. Role of androgen receptor in the gender bias in thyroid cancer

Our study performed in 125 thyroid tumor samples (Papillary thyroid carcinoma, follicular thyroid carcinoma and follicular adenoma) testing the expression of androgen receptors and its transcription regulators, p53, CBP and insulin like growth factors and its receptor transforming growth factor and its receptor along with the translational regulator micro RNA has established for the first time that androgen receptor (AR) is posttranscriptionally regulated by miR-124a in thyroid cancer tissues. Further, our in vitro studies with a PTC cell line (NPA-87-1) showed miR-124a as the potent inhibitor of AR that impairs cell proliferation even in the presence of testosterone. We concluded that: (i) The varying pattern of testosterone level and AR status in thyroid tissues of men and women may predispose to the gender specific incidence of thyroid tumors (ii) miR-124a plays a significant role in determining the AR gene expression pattern and thus, androgen mediated thyroid tumor growth.

Another aspect of the study, which is in progress, is on the polymorphism in androgen receptor gene with particular reference to GGC and CAG repeat length polymorphism. The shorter the length of GGC and CAG repeat length polymorphism, greater will be the androgen receptor activity and vice versa. This has been proved clearly in prostate cancer. The studies performed so far indicate thyroid disease specific pattern in the length of the GC rich sequences in a few cases. Once completed, this study shall throw further light on the role of androgen receptor in thyroid cancer. Mr. E. Suthagar has been working on this topic for his Ph D thesis.

Role of estrogen receptor subtypes in thyroid cancer

Using in vivo studies in human PTC samples and in vitro studies we have shown for the first time that estradiol stimulates thyroid cancer cell proliferation as in the case of breast cancer. Using specific blockers for estrogen receptor sub types ER α and ER â, we have shown for the first time that the mitogenic effect of estradiol in thyroid cancer is executed through ER α, whereas its binding to ER â may block the mitogenic effect of the steroid. Another novel finding of the present study is that estradiol binding occurs at plasma membrane ER α and triggers the MAP Kinase pathway to augment the expression of cyclin D1 through ERK1/2 phosphorylation. Flow cytometry analysis revealed that ER α activation leads to transition of cells from G0 to S phase of mitosis. These findings have been communicated to the journal Molecular and Cellular Endocrinology.

Another aspect of the study is to understand the molecular mechanism by which estradiol promotes the metastasis of malignant thyroid tumors. Vascular endothelial growth factor (VEGF) is an attractive therapeutic target in diseases where it plays a key role. In cancer, VEGF functions solely as an angiogenic factor, stimulating new vessel formation and increasing vascular permeability. Serum VEGF levels were correlated with clinical courses of tumor progression and tumor recurrence or metastases in well differentiated thyroid carcinomas. A balance between angiogenic and anti-angiogenic factors may be associated with tumor invasion to other organs or neovascularisation of papillary thyroid carcinoma. Estradiol is known to induce endothelial proliferation and migration mediated by the classic estrogen receptor, which is expressed by endothelial cells. With this background information in mind our team started research to understand the specific role of androgens and estrogens in the invasion of thyroid cancer. Using in vitro and in vivo studies on angiogenesis, cell invasion and migration along with expression pattern of VEGF and its receptor proteins, we demonstrated that estradiol promotes angiogenesis by stimulating VEGF and VEGF receptor gene expression in papillary carcinoma. Mr. R. Neelamohan will be submitting his Phd thesis soon on this aspect.

In yet another study, we have shown an inverse relationship between the expression pattern of estrogen receptor subtypes ER α and ER â in Hashimoto’s thyroiditis i.e. ER α is over expressed, whereas ER â is under expressed. This is consistent with the ER knock out studies in mice, which proved the ER α favors the development of auto immune thyroiditis.

All these data are being processed for publication in leading International Journals. We have already published one article recently.


The paper was presented at the Steroid congress held at Chicago, USA by Dr. Jone Stanley during March 2012 and was awarded Young Scientist Travel award, one of Seven awardees selected from among about eight hundred participants.

Another paper entitled Mitogenic effect of estrogen on human papillary thyroid carcinoma is mediated through MAPK signaling downstream of estrogen receptor alpha by Annapoorna K., AruldhasMM, ChandrasekaranM, StanleyJA, NeelamohanR, SuthagarE, BanuS, SharmilaS, SambhaviE, JayaramanG, SrinivasanN and BanuSK has been communicated to Molecular and Cellular Endocrinology.

Prof. M. Michael Aruldhas & Prof. M. Chandrasekaran
### Chief Minister’s Comprehensive Health Insurance Scheme

**Department of Endocrine Surgery Year: 2012**

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<th>No &amp; Female Patient</th>
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**Professor and Head**  
Department of Endocrine Surgery  
Madras Medical College and  
Rajiv Gandhi Govt. General Hospital,  
Chennai.

**Dean**  
Madras Medical College and  
Rajiv Gandhi Govt. General Hospital,  
Chennai.

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**CMHIS**

![CMHIS Image](image)

Dr. S. Dhalapathy  
Asst. Professor in-charge  
CMHIS  
(Endocrine Surgery)
SELSICON 2009 - First National Endoscopic Endocrine Workshop

QUARTA SEPT CENTENNIAL JUBILEE CELEBRATION
Madras Medical College - 175 Years

THE DEAN
&
THE DEPARTMENT OF ENDOCRINE SURGERY
INVITES YOU TO THE
INAUGURATION OF LIVE RILAY WORKSHOP IN VOLVING INTERNATIONAL FACULTY ON
EMERGING TRENDS IN ENDOCRINE SURGERY
In association with
UNIVERSITY OF PISA & SELSI
DATE - Friday, 4th September
TIME - 10.00 AM
VENUE - SEMINAR HALL, MADRAS MEDICAL COLLEGE

WELCOME - DR M SENTHIL KUMAR-ORGANISING SECRETARY
ABOUT 175 YEARS MNC HERITAGE PROF J MOHANASUNDARAN DEAN
ABOUT WORKSHOP PROF M CHANDRASEKHARAN- ORGANISING CHAIRMAN
INAUGURATION LIGHTING OF KUITEVILAKU
INAUGURAL MESSAGE PROF MEER MUSTAFA HUSSAIN
VICE-CHANCELLOR
TAMILNADU MEDICAL UNIVERSITY
MD & BEYOND PROF S PANGABHAYAM - GUEST OF HONOUR
SPECIALTIES IN TAMILNADU PROF S VINOYAGAM
-CHIEF GUEST-DIRECTOR OF MEDICAL EDUCATION
SELSSI MESSAGE PROF S D MAURYA-PRESIDENT-SELSSI
VOTE OF THANKS PROF V SUCHARITA

Procedures to be performed:
CONVENTIONAL THYROIDECTOMY
SUTURELESS THYROIDECTOMY
MINIMAL ACCESS THYROIDECTOMY
MINIMAL ACCESS PARATHYROIDECTOMY
MINIMAL ACCESS ADRENALECTOMY
MINIMAL ACCESS PITUITARY SURGERY

Prof. Meer Mustafa Hussain
Vice-Chancellor, TNMGRMU
Inaugurates
The First surgical Endocrinology clinic in India was started in the year 1979 by Dr. S.Vittal who was Assistant to Prof. R.Saratchandra, the then Professor of Surgery, at Madras Medical College and Government General Hospital. Dr. S.Vittal with the support of his Research fellow Dr. K. Bijaikumar established this rare speciality in the next eight years. This special surgical clinic blossomed into a full-edged Department of surgical endocrinology in the year 1987.

The first Asst. Professor post was created and Dr. M.Chandrasekaran joined the department in 1987. Dr. Vittal took over the reigns of this Department as Professor and Head till his retirement in the year 1999. During his tenure he was able to further strengthen the Department with the support of his dynamic Assistant professors Dr. M. Chandrasekaran and Dr. N. Dorairajan. Later Dr. N. Dorairajan became the professor of Surgery at MMC and Dr. M. Chandrasekaran took over as the Professor and Head of the Department of Surgical Endocrinology.

The number of patients into the OPD slowly increased from 12 to 15 per OP in the year 1987 to 100 to 150 per OP in the year 2005 and then the College decided to start a separate superspeciality course for Endocrine Surgery.

Dr. M. Chandrasekaran further stabilized this speciality with the support of his Assistant Professors Dr. V. Sucharita, Dr. R. V. Suresh, Dr. K. Kuberan, M.S. Senthilkumar and started the Superspeciality course - M.Ch in Endocrine Surgery in the year 2007.

It was in the year 2007 the name of this speciality was changed from Surgical Endocrinology to Endocrine Surgery to fall in line with the terminology of the Medical Council of India.

The Royal College of Physicians and Surgeons of Glasgow conferred FRCS (Glasg) on Prof. M. Chandrasekaran. Surgeons who started New superspeciality courses at MMC:

Prof. C. S. Sadasivam – Cardiothoracic Surgery,
Prof. A. Venugopal – Urology,
Prof. M. S. Ramakrishnan – Paediatric Surgery,
Prof. T. P. Jacob – Vascular Surgery,
Prof. N. Rangabashyam – Surgical Gastroenterology,
Prof. M. Chandrasekaran – Endocrine Surgery.

From 2007 onwards the course commenced. Dr. R. Nagarajan as the 1st MCh Post-Graduate (2007). The Asst. Professors were Dr. K. Kuberan and Dr. M. S. Senthilkumar until 2011.

In the year 2011 Dr. S. Dhalapathy who had completed MCh Endocrine Surgery Course from SGPGI, Lucknow joined the Department as Assistant Professor and was closely followed by Dr. Zahir Hussain who completed Endocrine Surgery Course from Madras Medical College.

Currently the Department has 6 MCh Post-Graduates with 2 Post-Graduates simultaneously pursuing PhD.
National Journals of Endocrine Surgery
Edited and Published from our Department

Editor: Prof. M. Chandrasekaran

Editor: Dr. M. S. Senthilkumar
2007, 2008
HONOURS & ACCOLADES

A Picture is worth Thousand word

President IAES, Indian Association of Endocrine Surgeons 2009

Dr. IAN ANDERSON, President Royal College of Physicians

Induction of visiting Professor by Vice Chancellor & Chairman Board of Superspecialities

Honour for Founder of MCh Endocrine Surgery, The 1st MCh course started by Tamilnadu Dr. MGR Medical University

Honour for Med-ej E-Journal

IMSACON - 2011

4th & 5th November 2011
Hyderabad

IFA Al Oration
The PUBLIC-PRIVATE PARTNERSHIP was encouraged by the then Government and the Department of Endocrine surgery signed an MOU in the presence of the Hon.Minister for Health and Principal Secretary, Health and Family Welfare at MADRAS MEDICAL COLLEGE under the full glare of the public eye & Academicians who were present in large numbers.

The partnership has reaped rich dividends.

Every patient with thyroid nodule in the Department of Endocrine surgery undergoes a Thyroid Scintigraphy. So far 675 patients have been benefitted and a huge expenditure to the tune of 2000000 (20 Lakhs) have been waived off by Bharat Scans Managing Director Dr. Emmanuel as a contribution to his alma mater Madras Medical College. The following Postgraduates have been posted for a period of two weeks as observers to witness the procedures.

1. Dr. R. NAGARAJAN - 2010
2. Dr. ZAHIR HUSSAIN - 2010
3. Dr. G MOHANAPRIYA - 2011
4. Dr. M.P.KUMARAN - 2012
5. Dr. HIMAGIRISH RAO - 2012
6. Dr. M.S.SENTHIL KUMAR - 2012
7. Dr. K.POONGKODI - 2012

PROCEDURES WERE DEMONSTRATED BY QUALIFIED NUCLEAR PHYSICIANS according to the Nuclear council norms and standardised institutional guidelines. They include

1) Technetium Scintigraphy for thyroid nodules
2) Radioactive Iodine uptake and ablation for Graves and other Toxic goiters
3) Radiiodine therapy for differentiated thyroid carcinomas
4) SESTA MIBI SCAN for parathyroid Adenomas
5) MIBG Scan for ADRENAL TUMOURS

The MOU and the Public Private Partnership has been of great help both for patient care and for academic understanding.
**NEWS ABOUT THE DEPARTMENT OF ENDOCRINE SURGERY**

(Sample of the recent news items are displayed here)
MCh Examiners

Prof. M. Chandrasekaran
Prof. Dayananda Babu
Prof. Saroj K. Mishra
Prof. V. Sucharita

Dr. R. Nagarajan
The 1st MCh, Endocrine Surgery Post Graduate from MMC
Graduated Year : 2010

Dr. Zahir Hussain
MCh-Endocrine Surgery Post Graduate
Graduated Year : 2011

Dr. G. Mohana Priya
MCh-Endocrine Surgery Post Graduate
Graduated Year : 2012
2000 Aug
Evaluation of osteopenia in thyrotoxicosis by Dr. Muzib Hassanal Rasheed

2001 March
Role of touch imprint cytology in the intraoperative diagnosis of solitary nodule of thyroid by Dr. N. Kathiresan

2012 Aug
Analysis of thyroid-stimulating hormone receptor antibodies in various thyroid diseases by Dr. S. Zahir Hussain

2010 Aug
Rapid preparation for thyrotoxicosis by Dr. R. Nagarajan

2011 Aug
A study on iodine status in hypothyroidism by Ms. V. Sathya

2012 Aug
Relevance of ultrasound in the diagnosis and management of malignancy of the thyroid by Dr. G. Mohana Priya

Dissertations in Endocrine Surgery
Madras Medical College
Endocrine Families Get together

Prof.&Mrs. Berti
Prof.&Mrs. Micolli
Prof.&Mrs. M.Chandrasekaran

The Thunder may be intimidating but brings down showers after and nourishes
So his my Mentor
Prof.M.Chandrasekaran

Thanks to this smile which has taken me miles
End of the beginning
- Dr.M.S.Senthilkumar
Most popular photograph of MMC, in print and online, displaying the attention to details practiced with passion by the photographer Prof. M. Chandrasekaran, for whom photography is more than a hobby.
THE SUCCESSFUL PUBLIC PRIVATE PARTNERSHIP
BETWEEN MADRAS MEDICAL COLLEGE AND BHARAT SCANS, CHENNAI