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NAVS NEWSLETTER

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Editor: Prof. Dr. R.N. Kohli

NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)

Office: G-4, A Block, NASC, Dev Prakash Shastri Marg, New Delhi-110 012

NATIONAL ACADEMY OF VETERINARY SCIENCES (INDIA)

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NEW DELHI NAVS NEWSLETTER

OCTOBER, 2018

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CONTENTS

1. NAVS General Information	
2. NAVS News	6
3. Editor's Note: Role of Internship and Hospital Residency	.8
4. Letters to the Editor	15
5. From the President's Desk: Big Data and Cloud Computing	.18
6. Vet Track: Appointments, Transfers, Promotions and Felicitations	21
7. View Point: Role of Animals During Disasters: Rama Kumar V	23
8. National & International Veterinary News	25
9. Science, Health & Society	32
10: Forthcoming Events (Calendar of Conferences, Conventions and Symposia in India and abroad)	.38

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CH. 1: NAVS GENERAL INFORMATION

OUR MISSION

"To consolidate and promote the views of scientific community on all policy matters related to Veterinary Science and Animal Husbandry in the welfare of India; to encourage better training and utilization of veterinary talent and enterprise in the country; to strive for advancement of livestock sector in the national economy; to promote animal welfare; to protect environment; and to safeguard the interests of the profession and to gain greater recognition and acclaim for it".

1.1: GOVERNING COUNCIL 2017-19

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Dr. S. K. Tiwari, Durg: drtiwarisurgery@gmail.com

Members

EX-OFFICIO

Incumbents holding following Official GOVT. OF INDIA POSITIONS are Ex-Officio members: DG RVS; DDG (A.S.), ICAR; AHC (GOI); and President VCI

1.2: INSTITUTIONAL/CORPORATE LIFE MEMBERS

INSTITUTIONAL LIFE MEMBERS

LUVAS (Lala Lajpat Rai University of Veterinary & Animal Sciences), Hisar, Haryana.

CKVU (Chattisgarh Kamdhenu Veterinary University), Raipur / Durg, Chattisgarh.

MAFSU (Maharashtra Animal & Fisheries Sciences University), Nagpur, Maharashtra

RAJUVAS (Rajasthan University of Veterinary & Animal Sciences), Bikaner, Rajasthan

DUVASU (Deen Dayal Upadhadhaya Veterinary and Animal Scieces University, Mathura, U.P.

KCVAS (Khalsa College of Veterinary & Animal Sciences), Amritsar, Punjab Sri Venkateshwara Veterinary University, Tirupati, A.P. Kamdhenu University, Gandhinagar-382010, Gujrat Bihar Animal Sciences University, Patna (Bihar)

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1.3: PAST OFFICE BEARERS OF THE ACADEMY

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* Dr. C.M. Singh - 1993 - 2004 (Founder President)
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Dr. S.C. Adlakha - 1/7/2007 - 28-2-2008
Dr. R.R. Shukla - 28/2/2008 - 31/10/2010
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Editors:

Dr. R.N. Kohli - 6/7/2009 to Present Date (Founder Editor)

1.4: CHRONOLGY OF NAVS CONVOCATIONS-CUM-CONVENTIONS

- 1. First NAVS Convocation: 18th December 1996 at Vigyan Bhawan, New Delhi
- 2. Second NAVS Convocation: 30th January 2000 at Pragati Maidan, New Delhi
- 3. Third NAVS Convocation: 16th April 2002 at IVRI, Izatnagar, U.P.
- 4. Fourth NAVS Convocation: 7th May 2005 at GBPUAT, Pantnagar, Uttrakhand
- 5. Fifth NAVS Convocation: 5th May 2006 at JNKVV, Jabalpur, M.P.
- 6. Sixth NAVS Convocation: 28th June 2007 at KVAFSU, Bangalore, Karnataka
- 7. Seventh NAVS Convocation: 16 May 2008 at SKUAST, Jammu, J. & K.
- 8. Eighth NAVS Convocation: $23^{\rm rd}$ January 2009 at SVVU, Tirupati, Andhra Pradesh
- 9. Ninth NAVS Convocation: 30th October 2010 at NDRI, Karnal, Haryana.
- 10. Tenth NAVS Convocation: 12th November 2011 at RAJUVAS, Bikaner, Rajasthan.
- 11. Eleventh NAVS Convocation: 2nd November 2012 at DUVASU, Mathura, U.P.
- 12. Twelfth NAVS Convocation: 28th January 2014 at LUVAS, Hisar, Haryana
- 13. Thirteenth NAVS Convocation: 28th February 2015 at CGKV, Durg, Chhatisgarh
- 14. Fourteenth NAVS Convocation: 4th November, 2015 at IVRI, Izatnagar, U.P.
- 15. Fifteenth NAVS Convocation held on 22 October, 2016 at KCVAS, Amritsar, Punjab
- 16. Sixteenth NAVS Convocation held on 4-5 November 2017 at Tirupati, A.P.
- 17. Seventeenth NAVS Convocation: Scheduled for 19-20 December 2018 at OUAT, Bhubaneswar.

^{*}Since deceased

CH. 2: NAVS NEWS

2.1: Governing Council Meeting Notice

The Secretary General has informed the Governing Council Members that the President, NAVS (I) has proposed to convene the next meeting of the Governing Council of NAVS (I) on 06.10.2018 (Saturday) at 11.00 A.M. at RVC Centre and College, Meerut. The agenda items to be discussed at this meeting have also been intimated to the GC Members.

It may be recalled that a delegation of then G.C. Members had paid a visit to the R.V.C. Centre and College, Meerut, almost a decade back on 6-7 July, 2009. Here are some glimpses of that visit.



Major General M.L. Sharma addressing the Delegates (top); and (above) on a round of the RVC Centre and College with the NAVS GC Delegation

2.2: 17th NAVS Convocation-cum-Scientific Seminar

The 17th Convocation-cum-Scientific Seminar of National Academy of Veterinary Sciences (India) is being organized at OUAT, Bhubaneswar from 19th to 20th December 2018. Theme of the Seminar is: "Livestock Sector towards One Health, Food Security and Safety". The Doyens of Veterinary and Animal Science profession and other dignitaries are expected to grace the occasion to participate in the Convocation and Eminent lead speakers are being invited to share their expertise during the deliberations and interactions for making fruitful recommendations.

For further details kindly contact Dr. R. C. Patra, Organizing Secretary & Dean of Research, Orissa University of Agriculture and Technology (OUAT), Bhubaneswar, Odisha; Ramesh Patra ranks-navsconv18@gmail.com M-8249975506

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CH. 3. EDITOR'S NOTE

3.1: Role of Veterinary Internship and Hospital Residency for UG and PG Instruction in Clinical Subjects

During the last couple of years we have seen some deliberations in the social media platforms on the role of Internship and Hospital Residency in Veterinary Education, particularly of clinical subjects. This piece is a brief reflection of some of the interactions on the theme.



Veterinary Educationists' Forum is a closed social media group created in 2015 to share thoughts, opinions and perspectives on veterinary education in India and abroad and find/suggest ways to improve standards and meet demands. The following post regarding Veterinary Internship and some of the comments it elicited may be of interest to those readers of NAVS Newsletter who may not have seen it so far.

POST - 1: "In general, India lacks large field veterinary hospitals in towns and villages where interns can have some experience beyond what they have learned during the studentship. Village-level animal health care system is still primitive in most of the places. We can only boast of some good teaching hospitals attached to colleges / universities, but all the graduating interns of a class can not perhaps be accommodated there without over crowding. It is essential to develop and run large hospitals / farms etc at appropriate locations in all states with large livestock populations, before opening veterinary colleges to which they should eventually be attached. The medical colleges are usually opened around the existing nucleus hospitals of desired bed strength and quality multi disciplinary clinical facilities, and then these facilities are continually further expanded and improved upon".

COMMENTS

<u>Jit Singh</u> There are some district level polyclinics with good facilities in some states where nice work is being done and interns do go there. But yes sir highly inadequate and your observation is correct

<u>Raghu Nath Kohli</u> There are some good private practices in some parts of India which also can be utilized; but the basic question remains.

<u>Jitendra Bhatia</u> This is the biggest challenge before the regulatory authorities. Internship has been raised to one year. Task is not easy but if the authorities have WILL and determination, it will not be possible. Supporting the fear of Dr. Kohli, I do wish the facilities should progressively be enhanced and improved to ensure better grounds for the trainers to undergo training.

<u>Srinivasan Ramanathan</u> When we talk about the facilities please mention also about truly well trained, experienced and credentialed clinician teachers and good teachers. In India there is no true clinical residencies or trainiships anywhere!!!!We only want academic qualifications that too PhD which has no practical significance in clinical subjects. Till we create those programs and

give the practical training to good clinicians and test them and validate them as true Specialists we will see poor clinical performance even by those people who have PhDs. So facilities and expensive gadgets won't give better clinical care automatically. It is always the man or woman behind the machine or gadget. For example the machine can spit out a true ECG Tracing reflecting the true clinical condition of the patient, but we must have a trained specialist who can accurately recognize and treat the patient for optimal and best clinical outcome. Till both the HR and infrastructure facilities are improved it will be difficult to change the clinical treatment and outcome that much!!!

<u>Jitendra Bhatia</u> Undisputedly man behind the machine matters. Human resource is the key component for growth.

Jit Singh Well said Srinivasan Ramanathan

Prayag Dutt Juyal we definitely lack trained man power. rightly said

Raghu Nath Kohli I came across the following post by Dr. Gautam Unny in VET ASSOCIATION, a Public Group, as a comment on my recent post regarding Veterinary Internship: "Sir I have often stated that 2 interns can be accommodated at private clinics in cities. I have an 18 year old small animal clinic and can train interns interested in small animal practice").

My response to it is as follows:

"We should welcome including the private clinics frequented by large numbers of patients in the internship programmes of the colleges after working out the modalities and signing MOUs. Bigger small animal clinics can be used for small animal practice and similar large animal private establishments for large animal practice. The administration of nearby veterinary universities should come forward and explore the possibilities. Dr. Gautam Unny and other private practitioners may also take an initiative in the regard".

POST - 2: ICAR is in the process of revising regulations and sylabii for M.V.Sc and PhD. degree programmes in Veterinary Science to be implemented throughout India. For this purpose broad subject matter area committees have been constituted. I am the chairman for the committee for the subjects of Animal reproduction (Gynaecology and Obstetrics), Medicine, and Surgery and Radiology. Convenor is Dr. Patil, Director Research-cum-Dean, PGS, Kamdhenu University of Veterinary Science, Gandhinagar. Gujarat, is the Convener. His email ID is: db1608@gmail.com and mobile numbers are 9825427650 and 7573035104. Since it's an issue of clinical subjects I request all concerned vets to please pass on suggestions to Dr .Patil on his email. There are also other members from prestigious institutes on the committee. However please send your suggestions to Dr Patil for compilation. Grateful. Thanks.

COMMENTS

Avtar Jandi Doctor Sahib, evolve a system which provides more clinical training than reading books as is the system with American College of Veterinary Surgeons, American College of Veterinary Internal Medicine etc. Or make it a hybrid system where lot of time is spent in imparting direct clinical cases education. To be a board certified surgeon, I have done more than 750 surgical cases as a primary surgeon. The system works ---first as a resident

you assist your mentor as a secondary surgeon on a case, then your mentor assists you in same or similar case next time and you are primary surgeon under the supervision of your mentor. Finally you do surgery on your own and your mentor is not scrubbed in but present in the premises. That is considered as a one case you can log in your book. spent in imparting direct clinical cases education. To be a board certified surgeon, I have done more than 750 surgical cases as a primary surgeon. The system works ---first as a resident you assist your mentor as a secondary surgeon on a case, then your mentor assists you in same or similar case next time and you are primary surgeon under the supervision of your mentor. Finally you do surgery on your own and your mentor is not scrubbed in but present in the premises. That is considered as a one case you can log in your book.

Raj Khare I fully endorse Dr. Avtar Janndi's suggestion. I am not Board certified in US. But I am in Clinical Medicine & Surgery practice for last more than 46 yrs. Our circumstances were different in late sixties & seventies. To get a Residency Training for India educated Veterinary Medical Graduates was extremely non existence. So we moved on with our lives good. Now the circumstances have changed. Many of our 2nd generations Graduates are very Efficient & Board certified or even now Licensing Board member or even the Chairman of the Board. No Discrimination. Raj Khare, Philadelphia PA USA

Jagdish Mittal Appreciable step for improving Veterinary Education

Rama Kumar V Does ICAR has the statutory authority to regulate veterinary education?

<u>Mahesh Agrawal</u> A very pertinent question. The matter should be raised otherwise what is the duty of VCI?

<u>Dayanand Garg</u> VCI didn't take initiative to revamp Veterinary PG education, so the ICAR is doing improvement in existing PG syllabi. What is wrong in it? VCI remained busy in PG certificate courses, if I am right.

Rama Kumar V Kindly provide the law under which the power and obligation to regulate veterinary education had been bestowed to a registered Society called ICAR?

Mahesh Agrawal VCI and NAVS should raise the above points?

Samunder Singh Wishing you all the best.

Ram Kumar Sheoran Great sir. I am sure under your chairman ship definitely the PG course curriculum shall take a <u>Vijay Taneja</u> Great. It is an important assignment as we need to allign our training and education to support the present and emerging future trends. Good luck.

<u>Vijay Taneja</u> Great. It is am important assignment as we need to allign our training and education to support the present and emerging future trends. Good luck.

<u>DrShivam Jar</u> The clinical training should be more practical oriented with supplementation of latest literature. Some times I personally feel deficient in various sorts of techniques. If a university level survey can be conducted that will be of great help.

<u>Laxman Sarkate</u> It's painful to say that our M V Sc and Ph.D. education is substandard when we compare with international standards not because we

don't have facilities but because of teachers are not well prepared to provide a quality teaching and research. Its big challenge before universities because I have seen, recorded and opposed before Authorities for punishment of guilty Authorities. Just by mear change in curriculum, object may not be fulfilled. I will give you detailed suggestions to Dr Patil.

<u>Vijay Kadian</u> Sir, currently we are tad more inclined towards course work and examination thing, and research is still very primitive. In masters, more than 40 credit hours is really demanding. Please address that <u>Vijay Kadian</u> Sir, currently we are tad more inclined towards course work and examination thing, and research is still very primitive. In masters, more than 40 credit hours is really demanding. Please address that.

<u>Mukesh Choudhary</u> vry pleasant to know it. Proud to had been your student. We believe pg&phd, research field will be justified like as others. Students must be supported economically by govt (stipend equil to medico).

<u>Kuldip Mirakhur</u> When will veterinary education especially specialization come out of the shadow of ICAR? The whole approach of veterinary education needs a sea change in India. Veterinary education doesn't have to focus on white revolution only.

<u>Mukesh Choudhary</u> Vet educ. Must be separate from icar bcz of icar have much more work load that why vet field less focused.

Ashok B VCI is only for graduate program

Mahesh Agrawal perhaps not correct

VCI was formed to look after the whole veterinary profession.

Rama Kumar V Hands on training must take precedence over thesis or theory Shiv Kumar Sharma What to say about Masters and PhD first change the pattern of BVSc. We have cramming \(\subseteq \subseteq \subseteq \text{type} \overline{\text{of}} \overline{\text{education}} \text{ in all the three degrees. MVSc in surgery and gynecology should be more of clinical and research work only in PhD.

Rama Kumar V let there be professional doctoral prgram for as VCI had proposed way back in 2000

Mukesh Choudhary Vci must be as strong as mci

<u>Bharat Jani</u> It's high time that post graduation programs in Veterinary Clinical Sciences focus on species specialization including fast developing pet exotic species. Hands on training is being talked about a lot since so many years but still at many colleges it's...<u>See more</u>

<u>Rammehar Malik</u> Sir a new system of holistic vety. Medicines called vety. Homoeopathy should be introduced in the field of vety. Science.

<u>Jit Singh</u> It's not in mandate given to us. Moreover don't know if legally veterinarians trained in allopathy system can practice it.

Jit Singh Just received a wonderful exercise done by clinical Dept's of TANUVAS to develop a document on revision. Great exercise for clinical subjects. That's the type of recommendations and suggestions we need to have. Worth praise.

Students are now a days concentrating on Marks then practical knowledge.....why it is that a student is getting very good marks but is zero practically. So I request you Respected Sir that more

practical work should be done and as far as marks are concerned only deserving candidates should be given

Manish Kawatra MVSc & PhD research topics shall be finalised as per the need of industry & applicability based. Final outcome shall benefit farmers or Vet. Pharma industry for some good take home & benefits. Knowledge shall be finally used for some particular purpose for them.

Manish Kawatra Some Farmers' represention & Veterinary Pharmaeutical Industry represention in committee would benefit on this auspect....Dear Sir. Jit Singh Committees are constituted by ICAR. WE of our own can't add

anybody.

POST-3: As requested by me earlier on a post on Facebook, the exercise being conducted to update Masters and Ph.D. course curriculum by ICAR and to send suggestions for the same. Our broad subject matter area committee is dealing with clinical disciplines ie Surgery, Gynae. and Medicine. We have already conducted 2 meetings at different institutes to make a rough draft. Now we will be conducting two workshops where teachers from all veterinary colleges will be invited to give inputs. The first workshop will be conducted on 24 to 25 September at Kamdhedhunu University, Gandhinagar, where teachers from southern states are being invited. The Second workshop will be conducted at another university in mid November for northern states. I once again as chairman of the committee request all veterinarians in my contact list, undergraduate & postgraduate students, field vets., teachers etc. to kindly send your suggestions to Dr. D.B. Patil, Dean postgraduate studies cum director of research, Convener of the Committee, Kamdhenu Veterinary University, Gandhinagar, Gujarat at his email... db1608@gmail.com. Kindly do respond.

COMMENTS

Raghu Nath Kohli This is a great exercise that was long overdue. BRAVO.

<u>Srinivasan Ramanathan</u> I feel we have talked about this for many years. I do hope we are making some decisions to put these ideas in to action. Unless we create practical hospital based residency programs in all the clinical disciplines for all animal species (like human medicine) there won't be much real progress!!

Raghu Nath Kohli Srinivasan Ramanathan Good Residency programs and internships provide a sound foundation for PG programs in clinical studies besides good research components. There is no substitute for Creation and strengthening of hospital based residency

<u>Vikas Galav</u> I wish, what comes out is not (like) what came out of MSVE-2016 for BVSc. Best Wishes and Regards Sir ...

<u>Nsr Sastry</u> It would be better if veterans come up with ideas for changes, so that the concerned panel members can know.

Rama Kumar V (It is) an unlawful activity, with no statutory power?

<u>Shiban Khar</u> For once I would tend to agree with Dr. Rama Kumar. Are we out to ensure total loss of academic freedom by enforcing what a few of us (handpicked by the Council) decide what is right and what is wrong for

awarding the highest degrees in the professional clinical disciplines. Personally I would leave it to the judgment of the student and his/her advisor.

<u>Satish Chopra</u> I appreciate your help in revising the vet curriculum. In the best interest of the professional excellence it is suggested that that after declaring them fully conversent with the non-clinical teaching, there is need for preparing them exclusively as Clinicians and production professional.

SOME OTHER RELATED POSTS

POST-4: Jitendra Bhatia to VETERINARY EDUCATIONISTS' FORUM

The VCI is the Statutory body to grant recognition to award BVSc&AH degree to Veterinary Institutions. For the purpose it has laid down MSVE, regulations in accordance to IVC Act, 1984. The PG education (master's and doctoral prog.) is under the domain of the ICAR. The ICAR synthesizes PG regulation and syllabus through the participation of Broad Area Subject Matters Committee for all the faculties falling the ICAR domain including veterinary sciences. The process of revision and up-scaling of educational norms by the ICAR are already on and revised guidelines expected to be put in place soon. Development Grant of ICAR to Strengthen Agricultural education to the SAUs are subject to the Accreditation of ICAR. It is thus mandatory for the Institution to be accredited to get Central assistance even when the VCI has granted recognition to the degree course. On the contrary, MCI grant recognition to the qualification and give accreditation to medical schools. The room to regulate veterinary education in-totality should be made by getting IVC Act amended in line with the MCI ACT. I personally feel that, there is a need to correct structural and functional imbalances occurring on account of dual control system over the veterinary education.

POST- 5: Jitendra Bhatia to VETERINARY EDUCATIONISTS' FORUM

Who is or should be the custodian of veterinary education? • The degree course (BVSc & AH) by virtue of the statutory provisions in the IVC Act, 1984, the VCI is the sole regulator of this UG course program, ever the MSVE. Regulations, 1993 laid since Master and doctoral programs are continuously governed by the ICAR right from the time land grant system of education came into being from 1970 broad onward under the Umbrella of Agricultural Education. Veterinary courses have been clubbed as a component of Agricultural education system.

• Lower education-diploma courses: Though, the IVC Act, 1984, Section 30, prescribed the for Minor Veterinary practice to be managed under supervision direction of Registered Veterinary Practitioner (RMP), Governments may notify Minor Veterinary services in the official gazette. Every State Government prescribed it's own diploma course program, nomenclature duration. **Variabilities** thus exist between the • Continuing Veterinary Educations (CVE). The CVE was introduced in 10th, Plan document of DAHF with the purpose of implementing' Professional Efficiency Development Program'. It thus is the responsibility of the DAHF, Govt. of India to ensure smooth conduct of this program effectively.

• PG diploma courses: Many Universities and ICAR Institutes are managing PG diploma courses suiting primarily to fulfill their needs Higher degree program for UG (BVSc&AH) vies-a-vies PG for the award of Master's and Doctoral programmes are controlled and regulated by two vital organizations - the VCI and the ICAR. Such an approach, which is continuing for the last 25 years, has, to some extent, hampered proper synchronisation of UG and PG degree programs.

Should there not be a common Regulatory Authority/ Mechanisms to oversee the complete higher education in Veterinary and Animal Sciences as has been the case in other professional degree courses/ programs? The professional authorities may re-visit the system in vogue in totality and ensure appropriate status to Veterinary Education.

COMMENTS

Rama Kumar V As you very well know that in spite of the historic decision (judgement) of the supreme court of India the present custodians of VCI has absolved itself of the responsibility of conducting the all India common entrance examination which as per law VCI has to conduct.

Jitendra Bhatia Dr. Kumar: you have exhibited your anguish and pains over the existing state of affairs. Every veterinarian wants to uphold the dignity of the profession. However, a very few amongst us have been involved in running the show. IVC Act is effective from the day one of its implementation. Whom are we looking for guide us to make it fully operational? How to make system operational well within the existing law/ provisions, is an issue to be ponder upon.

Rama Kumar V Rule of law and dictum of the apex court cannot be thrown to winds

Prof. Dr. R.N. Kohli, Honorary Editor, NAVS (India) rnkohli@gmail.com; 011-46065021; 9968920200

THIS IS THE VICIOUS CIRCLE

"The poor and the underprivileged need politicians to help them get jobs and public services. The crooked politician needs the businessman to provide the funds that allow him to supply patronage to the poor and fight elections. The corrupt businessman needs the crooked politician to get public resources and contracts cheaply. And the politician needs votes of the poor and the underprivileged. Every constituency is tied to the other in a cycle of dependence, which ensures that the status quo prevails".

= Raghuram Rajan, Former Governor of RBI.

4. LETTERS TO THE EDITOR

Dr Kohli sir Thanks a lot for preparing the Newsletter and forwarding a copy to me. We are thankful and indebted to you for the dedication and efforts. I am presently at Washington USA. While going through the newsletter I came across the name of Dr Goswami who is in USA and has been appointed as liasion officer. I contacted him on phone and got a very warm welcome. This could happen only due to your efforts. Thanks again. Warm regards:

Brig N.M. Singhvi; <singhvinm@gmail.com>

Sir, I have gone through the July issue of NAVS Newsletter. It is wonderfully compiled and very informative indeed. Some news items like US Vets of Indian Origin, Normal Blood Pressure debate, hair growth etc. were quite interesting and informative. I congratulate you for this excellent edition. With sincere regards: Dr. Rajveer Singh Pawaiya, Editor, Indian Journal of Veterinary Pathology and Principal Scientist Division of Animal Health, ICAR-Central Institute for Research on Goats, Makhdoom, PO Farah, Mathura-281122, Uttar Pradesh, India, Residence: Dev Nagar, Agra (U.P.); Mobile: +91-9410844980, 9045828870;

E-mail: rvspawaiya@gmail.com; rajveer.pawaiya@icar.gov.in

Dear Dr. Kohli: Thanks for the latest issue of NAVS Newsletter. You are doing a great service to your profession and even to the persons in other professions for being the editor for the last ten years. I have gone through the very well written editor's note. Restrictions on manufacturing of drugs is a burning issue today as they are being used for purposes other than for which they were meant. The criminal intent is difficult to prove, but it is a big deterrent for common man. Education of general users is another option. Regards:Lt Col B. R. Kohli (Retd.), New Delhi;

email ID:
 <b

Dear Dr Kohli, While thankfully acknowledging the receipt of NAVS NEWSLETTER, I must admit that with your untiring efforts, the quality & content of the NAVS NEWSLETTER is growing by the day! On the issue of unrestricted usage of Oxytocin, it is high time that the IDA & your association should come together to stop of this

menace, by enforcing the Government at the centre & states, banning selling of Oxytocin without prescription from the registered Veterinary Doctors. Dr. Animesh Banerjee, Adviser-Dairy & Food Sector; Formerly: Executive Director, NDDB; President IDA; Chairperson Dairy subgroup 9th, 10th & 11th Plans of Govt. of India; Chairperson Technology milk Vision2020,TIFAC, GOI. Email: kanerjeeanimesh@rediffmail.com; Blog kww.animesh35.blogspot.com

Thanks Dr Kohli for the July 2018 issue of NAVS Newsletter. It is really very informative. At this age you are doing so much for the welfare of the profession. Dr S.P Gautam, Gurugram, email ID <a href

Dear Professor Kohli, Thank you for the excellent and very informative July issue of NAVS Newsletter.

Dr. Autar Karihaloo karihaloo@gmail.com, USA.

Dear Dr Kohli: I can set my calendar when I promptly get the NAVS Newsletter. I congratulate you on the meticulous way you have set the standard which should be the guideline for all to follow. I am sorry to learn of the sad demise of Dr RPS Tyagi, one of the Veterans of the profession in the country. May his soul Rest in Peace.

Two important subjects have been discussed in the present issue. The President has rightly drawn attention to the ever growing problem of zoonoses. I feel this has received a casual treatment and draws attention when some problem is faced and easily forgotten after that. The medical profession shows passing interest and lays responsibility on the veterinary profession. I have participated in National Zoonosis Committees and also the state level ones. We never mustered resources to undertake any detailed studies. Thus zoonosis problems have remained orphans. Prof Rama Kumar has written about animal ethology. This should find a place in the curriculum of u/g studies. I recall that animal handling is taught without reference to animal behavior.

An interesting study by the NIANP in Bangalore on antimethanogenic feed supplement to control methane production should be further exploited. It will be of great help in buffalo rearing tracts as well as in large sized feedlot herds in other countries like USA and help environmental control. Regards:

Dr. B.S. Keshava Murthy; bskmurthy@hotmail.com>

Dear Dr. Kohli, Many thanks for sending the July '18 issue of NAVS Newsletter. Not having received the April'18 issue, I thought my name was weeded out. A huge relief therefore to find that is not the issue. Can you kindly forward the issue that I missed out earlier? Best Wishes, Dr. M.B. Chhabra, cchhabra.manmohan@gmail.com
(Editor's Response: Dear Dr. Chhabra: Surprisingly, many persons in our dispatch list do not receive some of the issues for reasons which do not operate at my level. What makes you suspect that I would delete you (an eminent Veteran of the profession and a dear friend for over half a century) from the dispatch list? The April issue is attached.) (Dr. Chhabra's reply: I did not think my remark was meant to be taken so seriously. Who would miss the non-received material unless the content was valuable read for him? As your old associate/friend, I am happy to find you going great guns, often marvel at your energy and stamina. Regards)

A NOTE FOR THE READERS

We are reproducing below some of the reasons of non-delivery of emails that are often intimated to me by the gmail administration:

Box full; Address not found; your mail could not be delivered because the recipient is not accepting any mail. If you feel you received this in error, please contact the recipient directly and ask them to check their email settings; Your message wasn't delivered because the address couldn't be found, or is unable to receive mail; Delivery has failed to these recipients or groups:; Your message wasn't delivered. Despite repeated attempts to deliver your message, a connection to the remote server couldn't be made; Contact the recipient by some other means (by phone, for example) and ask them to tell their email admin that it appears that your email system is unable to connect to their email system. Give them the error details shown below. It's likely that the recipient's email admin is the only one who can fix this problem. For more information and tips to fix this issue see this article: https://go.microsoft.com/fwlink/?LinkId=389361

host lmtp.mail.aol.com

5: FROM THE PRESIDENT'S DESK

Big Data and Cloud Computing Initiatives: Implications in Veterinary Science



Looking at various developments in the information technology (IT) sector, we experience its direct influence in our day to day life. There was a time when sequencing a short thread of DNA used to take a week long time but advancements in technologies have expedited the process and now genome can be sequenced in a day or two in throughput manner. There are number of advancements brought into biomedical studies by the IT based applications and it makes us feel proud that

India is leading in generation of such technologies.

Every day, we create 2.5 quintrillion bytes of data. Ninety per cent of the data in the world today is reported to have been created in the last two years alone. This data is big data.

Big Data and Cloud computing?

Big data is currently one of the most critical emerging technologies. Big Data are used as a concept that refers to the inability of traditional data architectures to efficiently handle the new data sets. The 4V's of big data – volume, velocity, variety and veracity makes the data management and analytics challenging for the traditional data warehouses. It is important to think of big data and analytics together. Big data usually includes data sets with sizes beyond the ability of commonly used software tools to capture, curate, manage, and process data within a tolerable elapsed time. Big data size is a constantly moving target, ranging from a few terabytes to many petabytes of data.

Cloud computing seems to be a perfect vehicle for hosting big data workloads. Cloud computing is internet-based computing in which large groups of remote servers are net-worked to allow sharing of data-processing tasks, centralized data storage, and online access to computer services or resources.

Big Data is revolutionizing the human healthcare system by providing a way to organize the influx of information in order to find patterns through new algorithms that they were unable to use before a unified system was available. The ability to analyze electronic medical records of millions of people is revealing information that would have otherwise gone undetected. One of the

many examples of a way that Big Data has assisted in combating common and devastating diseases was the outbreak of Ebola in 2014.

The CDC and a Swedish non profit called Flow minder were able to use a Big Data system called Biomosaic to track the movement of populations affected and from this they were able to figure out where the next spots of outbreaks were most likely to occur. This allowed them to be more prepared for the fight against Ebola, since Ebola was a type of infectious disease that had never been dealt with before. I had the opportunity to observe National Health Service of England (NHS) using big datais. The NHS has created "always-on, available-everywhere" cloud computing services.

The spread of Big Data has also surprisingly helped increase the milk yield from cows in India in some of the farms. Each cow has a tag that will send their health information to their owner such as their blood profile, whether or not they are in heat, need to be vaccinated, have proper nutrition, and so much more.

The same could be true for veterinary medicine. However, the infrastructure for inclusion of electronic medical records of animals into a global database is in its infancy. Applying Big Data to veterinary medicine allows for a wide range of information to be organized and accessible for all types of industries including human medicine along with food production and disease control. It provides convenient, on-demand and shared computing environment with minimal management effort and reduced overhead.

The growing use of Big data has revolutionized human health with new discoveries in disease prevention, diagnosis, and treatment. Veterinarians and animal health researchers haven't yet hopped on the bandwagon. Most veterinarians in our country still rely on pen and paper to record their patients' data, which can easily get lost and is not entirely efficient. Most importantly, these records cannot be used for the greater good of other animals and their health. This will dramatically improve animal healthcare like it has been shown to do for human medicine.

The innovation and spread of big databases is slowly picking up with creations like VetCloud (cloud based systems are used to improve pet health care) PigWise, VETport, LifeLearn, and many others contributing to this revolution.

This reminds me of my tenure in RVC Centre and School Meerut Cantt. as Commandant where I ensured the young officers (freshly commissioned) to have their individual laptops. These young officers were trained extensively in IT during their post-commission training and proved to be better IT savvy than those of earlier batches.

I suggest Veterinary Council of India (VCI) and all the veterinary universities/institutions in the country to introduce IT training for BVSc&AH students awarding reasonable credit hours. This will enable them to march with their counter parts in the developed countries and make them better professionals through Big data and Cloud computing.

Further, I urge all the Veterinary Institutions/hospitals and the practicing veterinarians to make switch over to electronic health record systems so that their patient's anonymous health information can be pooled to discover epidemiological trends within the data. This will dramatically improve animal healthcare like it has been shown to do for human medicine and enhance productivity, thus help doubling the farmers' income. Also it will help control diseases of zoonotic importance and importantly

Shri Narendra. Modi, Hon'ble Prime Minister has been laying strong emphasis on digital India which would also help Indian farmers in making use of cloud computing resources for enhanced agricultural productivity and better marketing.

Maj. Gen. (Retd.) Dr. Shri Kant Sharma, SM, VSM Email ID: shrikant28@hotmail.com

6: VET TRACKS

Appointments, transfers, promotions, awards, honors and felicitations

6.1: National Alliance of Indo-Canadians Honours Maj Gen Shri Kant, President NAVS (I)

Maj Gen Shri Kant, President of NAVS (I) visited Canada during July 2018. He was honoured by the National Alliance of Indo-Canadians (NAIC) in Toronto for his exemplary and inspiring leadership in the field of Veterinary Medicine. The certificate of honour was given by former Senator of Canadian Parliament Dr. Asha Seth in presence of the President NAIC and many distinguished guests.





The Alliance is non-profit community organisation to create a think tank of mature, wise, experienced and intelligent individuals of Indian origin for the benefit of Indo-Canadians, Canadians and the people of India. It strengthens social bonds among Canadians, irrespective of region, religion, race, creed and colour to generate oneness and brotherhood.

6.2: Vet. Veteran Dr. Dharam P. Monga returns from Ethiopia

July 31, 2018 was the last day of Dr. Dharam P. Monga's contract with School of Medicine of Addis Ababa University. He completed his eighth contract upon successfully completing 16 years in Ethiopia and regards that phase of his life as one of the best times of his life. He developed a small department with few a people into one of the best departments in the whole country by his hard work done with all his sincerity. The department presently has almost 30 PhD students on roll and he had the honour of being the Coordinator of PhD program all these years. The students and colleagues of the department gave him full cooperation and affection during all these years. He and his wife fully enjoyed living a major part of their lives in the beautiful Addis Ababa, of that great country and left the affectionate people with heavy hearts, but with a great treasure of unforgettable memories.

6.3: Dr. Om Prakash Mishra Joins as Director of Research

Dr. Om Prakash Mishra, Professor and Head, Department of Veterinary Physiology, and a Fellow of the Academy, writes to inform that he has joined as Director of Research, Chhattisgarh Kamdhenu Vishwavidyalaya, DURG, Chhattisgarh. He seeks our continuous guidance and support to perform his duties. His Contact Details: Cell: 9827163521; Phone:0788-2260413(R),2623463;Email- drscgkv@gmail.com;;mishraop1961@gmail.com; mishraopmissionmode@yahoo.com

6.4: Dr. S.N.S. Randhawa awarded fellowship of National Academy of Dairy Science, India.

Dr. S.N.S. Randhawa has been awarded fellowship of National Academy of Dairy Science, India in recognition of outstanding contributions and scientific achievements in the field of Veterinary and Dairy Sciences. The fellowship was awarded during the convocation of NADSI organized at College of Dairy Technology, Sri Venkateshwara Veterinary University, Tirupati (A.P.) on 9th September, 2018 He is presently serving as Professor & Head at Khalsa



College of Veterinary and Animal Sciences, Amritsar, Punjab (Affiliated with Guru Angad Dev Veterinary and Animal Sciences, Ludhiana). He was former Professor & Head of the Department of Veterinary Medicine in PAU and also Ludhiana **GADVASU** Ludhiana as Research Advisor (GADVASU)-cum-Professor (Vet. Medicine), Director of Research: Dean PGS & Director, Extension Education with over 37 years of experience. He was President of Indian

Society of Veterinary Medicine for four years.

G.P. Verma is the new Secretary I D A, New Delhi As per information received from the Indian Dairy Association, New Delhi, Shri Gyan Prakash Verma, took over as Secretary (Establishment), Indian Dairy Association, New Delhi, with effect from 1st August 2018 in place of Shri N.K. Bhanot, who served IDA for about 10 years. Shri Verma is a 1975 batch B.Sc. (Dairy Technology) from National Dairy Research Institute, Karnal, Haryana, India and has more than 37 years of experience in Dairy industry in areas of Operations, Quality and Contract Manufacturing. Email: gyanp-7@yahoo.com; Mobile: +91-9811620468 Email: gyanp-7@yahoo.com; Mobile: +91-9811620468

7. VIEW POINT

ROLE OF ANIMALS DURING DISASTERS (Mitigation, Search, Rescue, Relief or Rehabilitation)

Rama Kumar V Former Secretary, Veterinary Council of India

- 1. It is assumed that animals can forewarn an incumbent disaster. (Limited to some of the hazards; not fully proven)
- 2. Animals like the dogs are used for search & rescue operations. During flash floods people escape holding on to animals; all animals are natural swimmers.
- 3. Animals and animal driven carts are the available means of transport of injured and invalid people when no other transport is possible. Animals are also used for clearance of debris.
- 4. During disasters the people lose their property and livelihood. It takes time to recoup loss of crops, infrastructure or machinery. Animals, if salvaged, can provide the community with food, energy, transport and the other utilities immediately (as long as they are healthy and cared for).
- 5. Unlike standing crops or infrastructure, the animals can be salvaged and brought to safer places, where a disaster can be predicted. In transit camps or in rehabilitated dwellings too the animals can be utilized for milk, manure, transport, fuel (dung cakes).
- 6. Animals are used for fetching water or for lifting water from the water sources, where machine or man power are either not available or can not be used.
- 7. Even in their death, animals serve the community; they provide some material gain through, their hide, bone, lard and carcass.
- 8. Partially damaged crops & grains unfit for human consumption can be gainfully used as animal feed.

- 9. Since there is major participation of women & children in the care of animals, this activity can be a major diversion to tide over the gloom and depression that fall over the victims during a disaster.
- 10. Flooded areas with slow drainage, can be used for duck rearing and fish farming. These help in clearing pests which usually breed during floods.
- 11. Free living animals like the pigs play an important role in clearing garbage, waste materials etc.; they provide livelihood to economically weaker section and can be a cheap source of protein to these communities specially when other sources of food become scarce. Similarly, free living stray dogs consume discarded food, crows clear spoilt materials that is thrown around, vultures devour the dead animals, snakes control rodents; cats do the same.
- 12. Dogs (pets and community animals) keep the creeping reptiles and straying wild animals at bay or at least forewarn the community of their intrusion.
- 13. People marooned during floods or earth quakes during winter have survived chilly nights taking refuge among herds of sheep and goats.
- 14. War is man made disaster during war animals play a key role. Horses and mules are used for transport in difficult terrain around the border. Dogs are used in the army for reconnaissance, tracking, guarding and combat.
- 15. Animal rearing is the only dependable vocation for the border villagers who are under constant threat of disturbances and dislodgment. Animal rearing can generate protein food for army and a source of income for the poor border dweller, thus building a positive rapport and mutual dependence between the two. Constant poverty often compels these people into anti-national activities.

8. NATIONAL & INTERNATIONAL VETERINARY NEWS

8.1: ICAR Committee on Revision of Syllabus of Masters and Ph.D. Programmes in Veterinary Clinical Subjects holds a Workshop

The education division of ICAR has constituted 17 Board Subject Matter Area (BSMA) committees of Agricultural Sciences to revise syllabus of Master's and Ph.D. Programmes. In Veterinary Sciences three BSMA committees have been constituted viz for preclinical, para-clinical and clinical subjects.

The members of the Committee for Clinical Subjects (Surgery & Radiology, Gynaecology and Obstetrics and Medicine) are: Dr. Jit Singh, Chairman (Udaipur), Dr. D.B. Patil, Convenor (Gandhinagar), Dr. J.K. Prasad (IVRI), Dr. K.N. Arvinda Ghosh (Trissur, Kerela), Dr. Naveen Kumar (IVRI), Dr. V.K. Gupta (IVRI) and Dr. S.N.S. Randhawa (Amritsar). This committee, after getting inputs form various institutes, prepared a draft document which was discussed in two meetings held at Gandhinagar and then at Udaipur. After incorporating various suggestions it was decided to hold two national workshops for teachers & stakeholders for personal interaction. The first workshop was organised on 24th and 25th September, 2018 Gandhinagar where teachers from Southern States and from Assam and Orissa were invited. A total of 56 persons participated including representatives of NDDB and pharmaceutical companies. Dr. P.H. Vataliya, Vice-Chancellor of Kamdhenu University, Gandhinagar, Dr. A.R. Pathak, Vice-Chancellor of Junagarh Agricultural University and Dr. N.C. Patel, Vice- Chancellor of Anand Agricultural University, also participated in the deliberations. The valedictory function was graced by Sh. Kunwarjibhai Bavalia, Hon' ble Minister of Animal Husbandry, Water Supply and Rural Housing, Govt of Gujarat.





After incorporating the suggestions from this workshop, the 2nd workshop for teachers of northern states will be held in Mid-November at Mumbai. Suggestions on the subject if any, may please be sent to Dr. D.B. Patil, Director Research cum Dean PGS, Kamdhenu University, Gandhinagar via email: (db1608@gmail.com)

8.2: IAAVR presentation to the Council of Federation of Asian Veterinary Associations

The representative of the Indian Association for Advancement of Veterinary Research (IAAVR) is to make a power point presentation of 7-8 minutes to the Council of Federation of Asian Veterinary Associations on 30th October 2018 in Indonesia in context of becoming member of FAVA. The President of IAAVR, Dr. Rishendra Verma, humbly requests the most senior colleagues who have been associated with IAAVR to kindly suggest VISION AND MISSION for the association. He will look forward for any suggestion. Details of IAAVR are available on their website www.iaavr.org

8.3: Tuberculosis in Animals: Scientists Develop the First Non-Antibiotic Drug Treatment.

Scientists at the University of Manchester, under the leadership of Professor Lydia Tabernero, have developed a non-antibiotic drug for treating *Mycobacterium tuberculosis* infection in guinea pigs successfully. The new drug is targeted to the bacterial defenses rather than the bacteria itself, and can also remove the commonly antibiotic-resistant strains equally effective. The findings are published on journal of Medicinal Chemistry, Sept 11 2018 issue.

Tuberculosis, an amazingly difficult to treat bacterial disease, has become even more difficult to treat with the current treatment protocol/regime with antibiotics. Although a vaccine for TB was developed 100 years ago, recent reports declared a worldwide increase in the number of death due to TB each year from 6.3 million deaths in 2016 to 1.7 million deaths in 2018. A total of 7.3 million people were diagnosed and treated in 2018.

The current treatment plan with antibiotics do not remove the infection, but increase the risks of resistant strains such as multidrug resistant species (MDR) *Mycobacterium tuberculosis*or *M.bovis* to become increasingly common to isolate from patients in the recent years. The research group investigated one of the bacterial defense system – a virulence factor called MptpB which when blocked allows the white blood cells to kill the bacteria in a more efficient way. Prof. Tabernero emphasized on the safety of the method, as absence or lack of similarity between human cells and MptpB of the bacterium reduce or decrease chances of toxicity of the compound used to block the virulence factor of the bacteria. She also emphasized on the reason as to why the method works so perfectly well in experimental animals. She explained that since the bacteria has not been targeted directly, it is less likely to develop resistance against this new agent, giving a major advantages over the currently used antibiotics. Source: University of Manchester, Sept 11, 2018.

https://www.sciencedaily.com/releases/2018/09/180911083150.html

8.4: Treating Antibiotic Tolerant *Pseudomonas aeruginosa:*

A New Approach

Dr. Dao Nguyen, a scientist from translational Research in Respiratory Disease Program at Research Institute of McGill University Health Centre (RI- MUHC) and her team have identified new enzyme target for antibiotics in *Pseudomonas aeruginosa*, a growing global threat of antibiotic-tolerant bacteria. The team discovered that *Pseudomonas* when under stress or lacking nutrients uses a signaling system and defense enzymes (superoxide dismutase) to modify its cell membrane, making it less permeable to molecules and prevent penetration by antibiotics. By inhibiting this enzyme activity or stress signaling system of the bacteria, the team could make the pathogen more susceptible to antibiotics.

Antibiotic tolerance in slow growing bacteria has been widely attributed to inactivity or absence of target cells on the bacteria. However, the explanation is not as simple as it seems. Dr. Nguyen explains that many bacteria that grow slowly or do not grow at all become tolerant or resistant to antibiotics leading to treatment failure or relapse of infections. Among the slow growing bacteria, Pseudomonas aeruginosa has become the most common cause for many serious infections in immunocompromised and immunosuppressed patients both in medical and veterinary sciences. The bacterium has even been declared the leading cause of death in patients with respiratory infection especially cystic fibrosis. This is because the bacteria cannot be cleared from the lungs even with the most potent combination of antibiotics available. isolation of *Pseudomonas* aeruginosa from animal specimens in veterinary microbiology laboratory also reiterates the significance in transmission of antibiotic tolerant bacteria from animal to human and vice versa. The report says, this new discovery open up new links between the state of the bacteria under stress, such as stress defense enzyme, regulation of membrane permeability and antibiotic tolerance. This new target which is important for antibiotic tolerance is the new target to enhance the already available antibiotics, new approach to treatment of antibiotic resistant strains, expansion of the use of commonly available antibiotics and new discovery.

Source: McGill University Health Centre. "New means to fight 'un-killable' bacteria in healthcare settings: Canadian scientists identify new cellular target to weaken *P. aeruginosa* -- a severe threat to patients with cystic fibrosis."ScienceDaily, 13 Sept. 2018;

<www.sciencedaily.com/releases/2018/09/180913113846.htm>.

8.5: Cardiologists Discuss One Health Approaches to Heart Disease

UC Davis continues to lead the way in a growing approach to medicine called One Health. Understanding that the health of humans, animals and the environment are all connected and may hold discoveries for each other is the foundation of One Health. A cornerstone of that approach is studying the diseases animals and humans share. One of those is hypertrophic cardiomyopathy (HCM), a heart disease that results in thickening of the walls of the heart ventricles, interfering with the flow of blood, and leading to sometimes fatal consequences. The condition can be difficult to study in humans due to its low rate of occurrence (about 1 in 500). However,

veterinarians are proving to be a much welcomed addition to that research, for they see a condition that almost exactly resembles human HCM in approximately 10 percent of cats.

Recently, the world's leading veterinary cardiologists (including UC Davis' Dr. Joshua Stern), human cardiologists, cardiovascular researchers and regenerative medicine researchers gathered at the conclusion of the American College of Cardiology's annual meeting for an exciting One Health conference. The conference, titled "Many Species, One Health: Regenerative Medicine Meets Comparative Medicine for Cardiomyopathy and Beyond," focused on translational cardiology for cardiomyopathies.

The gathering was co-sponsored by a grant from the Clinical and Translational Science Award One Health Alliance (COHA), a group of 14 prominent national universities (including UC Davis) whose translational science centers are bridging the gap between human and veterinary medicine. Dr. Stern was a contributor to the COHA grant that funded the conference, where he presented lectures on HCM. translational studies of HCM. He has worked extensively with human medicine counterparts to advance the understanding of, and treatments for, this disease.

"Unfortunately, there has been little to no progress in advancing the treatment of HCM in humans or animals for many years," said Dr. Stern. "We hope that these One Health collaborations, and our better understanding of this disease, can change that."

In addition to Dr. Stern from UC Davis, the conference included faculty from several veterinary schools, including Cornell University, North Carolina State University, Tufts University, the University of Florida, the University of Illinois, and the University of Wisconsin. Human cardiologists, regenerative medicine experts, and other participants with a cardiovascular research focus attended from the California Institute for Regenerative Medicine, the Food and Drug Administration, the Mayo Clinic, the Montefiore Einstein Center for Heart and Vascular Care, the NYU School of Medicine, Tufts Medical Center, and the University of Florida's Center for Regenerative Medicine, Powell Gene Therapy Center, and School of Medicine.

Through the course of the two-day conference, participants engaged in presentations and discussions geared toward advancing translational cardiology, particularly in the area of cardiomyopathies. The group looks forward to continued collaborations and engaging in more One Health approaches to HCM.

8.6: ICAR-NIANP, Bengaluru Organizes Short Course on Recent Advances in Nutritional-Physiological Approaches for Improving Reproduction and Production in Livestock under Climate Change Scenario

ICAR-NIANP, Bengaluru organized 10-days ICAR Sponsored Short Course on "Recent advances in nutritional-physiological approaches for improving reproduction and production in

livestock under climate change scenario" from 20 to 29 Aug 2018. The short course was inaugurated on 20 Aug 2018 by Dr C Balachandran, Vice-Chancellor, TANUVAS. In his address, Dr C Balachandran stressed upon the need of scientific interventions to sustain the livestock productivity under changing climatic scenario. Further, he added the possibility of collaborative research projects between ICAR-



NIANP and TANUVAS in the area of climate change. Dr Raghavendra Bhatta, Director, NIANP, Bengaluru briefed about the various activities, technologies developed and commercialized by the Institute. The trainees from seven states of the country were participated in the short course. The training programme was comprised of 30 lectures on various subjects such as impact of climate change on livestock productive and reproductive performance, ameliorative strategies, ration balancing, mineral nutrition, alternative feed resources, poultry farming, sheep and goat rearing production etc. In addition, few practical classes and demonstrations on fodder production and conservation, feed quality and semen analysis were also arranged during the training programme. On the day of valedictory function on 29 August, the Chief Guest Dr CS Prasad, Former Director ICAR-NIANP presented the training completion certificate to the trainees. Dr CS Prasad, urged the scientists to disseminate the technologies to farmer's field which can sustain the livestock production and reproductive performance even during the extreme climatic conditions. Dr R Umaya Suganthi, Pr. Scientist was the course Director and Dr NM Soren, Dr A Mishra and Dr G Krishnan were the course coordinators.



8.7: Study of cancer in dogs may accelerate treatment advances for humans: Michael S. Kent

Comparative oncology — the study of naturally developing cancers in animals as models for human disease — has been practiced for decades.

However, conducting clinical trials on the spontaneous cancers of people's pet dogs is a relatively new concept. The effort has gained traction with a concerted effort on the part of academic centers and NCI to further develop the dog model.

In a new partnership led by Michael S. Kent, DVM, DACVIM, DACVR, professor and director at Center for Companion Animal Health and codirector of the Comparative Cancer Center at the School of Veterinary Medicine, and Arta M. Monjazeb, MD, PhD, associate professor in the department of radiation oncology at UC Davis and UC Davis Comprehensive Cancer Center, experts are working together to test new cancer treatments in dogs. The goal is to make discoveries that accelerate the development of new, more effective therapies for humans.

HemOnc Today spoke with Kent and Monjazeb about the insights gleaned from comparative oncology work so far and the key questions that are the focus of their current research efforts:

Question: How long has comparative oncology been used and how extensively is it used in the United States?

Kent: The entire concept of 'one-health' and the fact that we are mammals and we share disease processes with animals has gone back for centuries. It has sort of risen and fallen but, in some areas — especially infectious disease — it has been around for quite a long time. The idea of comparative oncology first took hold in the 1970s, when people were researching some of the viruses that can cause cancer and these viruses were found in animals. There has been more research during the past 5 years looking at some of the small molecule inhibitors that suggest the need for more robust models.

A partnership led by researchers at UC Davis School of Veterinary Medicine and UC Davis Comprehensive Caner Center is designed to evaluate new cancer treatments for dogs in hopes of accelerating the development of more effective therapies for humans.

Q: What important insights have been gleaned from comparative oncology work?

Monjazeb: Several insights have been gleaned so far. One of them is the utility of the dog model in that it better represents human disease and gives us an opportunity to test novel therapies, both for toxicity and effectiveness, in a way that was impossible without this model. Other insights include the fact that we have learned a lot about the shortcomings of mouse models. Mouse tumors are either implantable or genetically engineered such that they grow rapidly, behave in very characteristic ways that are not necessarily the same as human

tumors, and the immune system responds differently to those types of tumors than it does to spontaneous tumors.

Q: What is the potential short-term or long-term impact of the comparative oncology approach?

Monjazeb: Already in the short term, because we have gained data from our dog models, we are moving things into human clinical trials. In the long term, I think this will become more of an essential part of cancer research to ensure that the drugs and combinations that we are giving to humans are safe and effective. This creates a wonderful niche for comparative oncology trials and also benefits the canine patients by giving them access to novel therapies.



9. SCIENCE, HEALTH & S**OCIETY**

The health information included in this publication, unless stated to be otherwise, has not been evaluated by the Food & Drug Administration or any other medical body. We do not aim to diagnose, treat, cure or prevent any illness or disease. Information is shared for educational purposes only. You must consult your doctor before acting on any content.

9.1: Poor-quality health care is a problem worldwide

There's been good progress in reducing the burden of disease worldwide — but there are still "enormous gaps" in the quality of health care worldwide, according to a new report from the National Academies. In low- and middle-income countries, it's estimated that between 5.7 million and 8.4 million deaths happen each year due to poor health care. The economic cost of lost productivity: \$1.5 trillion a year. The report calls on health officials to embrace digital health tools, look into how people use informal health care providers, and figure out ways to improve the care provided by people without formal training.(STAT: Morning Rounds <newsletter@statnews.com>)

9.2: Tree shrews can eat a ton of hot peppers. Science explains why

Chinese tree shrews down chili peppers like candy — and now, researchers have figured out why it's easier for them to take the heat than other mammals. Chili peppers contain capsaicin, which trigger the activation of the TRPV1 ion channel on the surface of the tongue's pain-sensitive cells. Most mammals — and some humans — avoid spicy foods with capsaicin for that reason. Researchers found one amino acid that differs between the TRPV1 proteins in tree shrews and those in mice. That amino acid seemed to reduce capsaicin's ability to bind to the protein, making it easier for the little critters to douse their meals with a bottle of hot sauce without feeling pain. leng-statnews.com

9.3: Commonly used antibiotic in India under USFDA lens

Fluoroquinolone, a commonly used<u>antibiotic</u> in India for the treatment of a range of bacterial infection, has come under the US Food and Drug Administration (<u>USFDA</u>) scanner for its effect on mental health and for causing low blood sugar adverse reactions, including coma. Through its review of adverse event reports and case reports published in medical literature, the US regulator has found instances of hypoglycaemic coma due to blood sugar disturbances in users of fluoroquinolones. It has ordered safety labelling changes for the antibiotics to strengthen the warnings about the risks and make them more consistent across the labelling for all fluoroquinolones taken by mouth or given by injection.

The US FDA warning has also alerted doctors in India. "We will be watchful while prescribing it and will issue adequate instructions to patients," says <u>Dr Anoop Misra</u>, chairman, <u>Fortis C-Doc</u>. "The use of fluoroquinolones has a place in the treatment of serious bacterial infections and they should remain available as a therapeutic option," said Edward Cox, MD, director of the office of antimicrobial products in the FDA's Center for Drug Evaluation and Research. It has ordered safety labelling changes for the antibiotics to strengthen the warnings about the risks and make them more consistent across the labelling for all fluoroquinolones taken by mouth or given by injection.

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9.4: L&T chairman to set up cancer hospital in Gujarat

Larsen & Toubro chairman A M Naik plans to set up a cancer hospital in Navsari, Gujarat, through his philanthropic foundation Nirali Memorial Medical Trust. Nirali is the name of Naik's granddaughter who passed away due to cancer at the age of two. Naik and his family then set up the philanthropic foundation in her name to help other cancer victims, especially those who don't have access to quality treatment. A statement from Naik said that the chairman of India's largest construction and engineering company chose Navsari as the location for the cancer hospital as it was also his birthplace. The hospital will be managed by Tata Trusts. Interestingly, Navsari was also the birthplace of Tata Group founder Jamsetji Tata.

9.5: Few Daily Mind Activities to Keep the Brain Active

Age catches up with people in many ways and a decline in cognitive capabilities or memory loss, or even Alzheimer's disease etc. is possible. Hence, it is always advisable to keep oneself, not just physically, but also mentally active. Also, it is important to have a good 7 to 8 hours of sleep every day. Recent research on this topic has proved that sleep helps in de-cluttering the brain and delaying diseases like Alzheimer's. There are a few other activities that you can do on a daily basis to ensure that the mind is sharp:

Puzzles; Hobby; Gardening; Physical exercise; Board Games; Computer or video games; Learning Activity; Travel. (Al Sears, MD, CNS)

9.6: WHO makes its case for more funding

With a new five-year plan in hand, the WHO is <u>making the case</u> for member countries and other donors to invest more in its global health work. The perennially cash-strapped agency says it needs \$14.1 billion between 2019 and 2023 — a 14 percent increase in its base budget over the past five years. With that money, the WHO says it would be able to work with partners and countries to save up to 30 million lives and give low- and middle-income countries up to a 4 percent boost in economic growth by 2023. <newsletter@statnews.com>

9.7: How the Cancer Genome Atlas revolutionized cancer research and technology

The Cancer Genome Atlas is wrapping up. Reports of the primary findings for each studied tumor type have been published, and summaries of the key themes uncovered during the 10-year project make up the Pan-Cancer Atlas. The project's ambitious efforts are mostly complete, but its impact is just beginning. The Cancer Genome Atlas spawned a revolution in cancer research and technology. newsletter@statnews.com

9.8: Ebola efforts in DRC seem to be working, despite challenges

New data on the Ebola outbreak in the Democratic Republic of the Congo suggest that efforts to stop the spread of the deadly virus there are working despite challenges. Health officials said yesterday there have been 142 cases, including 97 deaths. One key control measure: an experimental Ebola vaccine from Merck. Earlier this week, the WHO's Dr. Peter Salama said 10,000 doses have been given so far. But officials warn there are still hurdles. The teams monitoring the health of contacts of Ebola patients have lost track of some. A few people diagnosed with Ebola have refused to go to treatment centers and have fled — increasing the risk people who care for them will contract the virus. And some local health clinics have been slow to recognize Ebola when patients present for care, leaving health workers exposed to the virus. newsletter@statnews.com

9.9: Post Office Digital Savings Account Using IPPB Mobile App

Prime Minister Narendra Modi launched the <u>India Post Payments Bank</u> on 1 September, the union government's latest step towards financial inclusion of the remotest areas of India. You will now be able to avail banking services like a savings account or current accounts, money transfer (Through RTGS, IMPS and NEFT), direct benefit transfers and pay your utility bills using just your smart phone through IPPB's Digital Savings Account. (Details: <info@em.fantasticindiaa.com>

9.10: Pycnogenol® Effective in Improving Symptoms of Mild Cognitive Impairment

New published research shows the cognitive health benefits of natural super antioxidant Pycnogenol® for reducing symptoms associated with Mild Cognitive Impairment (MCI) – a potential risk factor for early onset dementia and other degenerative cognitive conditions. Findings show the extract significantly enhances the ability to remember friends and family, improves ability to remember where things are and the ability to manage finances. This new study builds upon previous research supporting the benefits of Pycnogenol® for cognitive health improvement including brain health functions like memory, decision-making and focus. (NutraIngredients Asia-Pacific) newsletter@nutraingredients-asia.com

9.11: Digital Driving Licence, Registration Certificate Now Valid

It is now finally official, Ministry of Road Transport has issued a notification informing that digital driving license and vehicle's RC papers stored in DigiLockers are now legally recognised at par with the original documents as per the IT Act 2000 and is valid under the Motor Vehicles Act 1988. Effective immediately, the notification by the ministry is addressed to all the India State's Principal Secretaries, All Secretaries of Department of Transport, DGPs/ ADGPs(Traffic) and all State/UT Transport Commissioners. As per Nitin Gadkari led Road Transport ministry, it is said that a number of suggestions and RTI applications were received in which the citizens have raised issues that the travel documents including DL and RC to be legalized on the DigiLocker or the mParivahan app. Further clarifying, the government's DigiLocker platform built by Ministry of Electronics and Information Technology, has the facility to pull a citizen's Driving Licence or the Registration Certificate or any other certificate in an electronic form. It is now confirmed that these documents on the DigiLocker or mParivahan are deemed to be legally recognised at par with the original documents as per the provisions of the Information Technology Act, 2000.

9.12: Your PF Comes With Up to Rs 6 Lakh Life Insurance Coverage?

As a salaried employee of a company, you may be aware of some benefits like provident fund (EPF), health insurance, transport and <u>Life insurance</u> coverage and entertainment allowances etc that you receive from your employer but many do not know that they are covered for life insurance under the Employees' Deposit Linked Insurance (EDLI) scheme of 1976 within EPF.

(Details: http://www.trendtalky.com/up-to-rs-6-lakh-life-insurance-coverage/)

9.13: Facts About Coconut Oil Twisted

Not long ago, I overheard some of my staff in the conference room talking about the American Heart Association's latest dire warning about the "dangers of coconut oil." I got up from my desk and joined them. This kind of misinformation makes me furious... Especially coming from an organization that sells itself on looking out for the public's heart health. Once again, the AHA is twisting the facts because of their ignorance of the science. And then the mainstream media jumps on the bandwagon and publishes headlines like these: "Coconut Oil Isn't Healthy. It's Never Been Healthy" — USA Today "Nutrition Experts Warn Coconut Oil Is On Par With Beef Fat, Butter" Chicago Tribune . . . "This Popular Health Food Is Worse For You Than Pork Lard" — Daily Star. It turns out that the latest bad advice comes courtesy of a Presidential Advisory published in the AHA journal. In it, they recommend that everyone avoid coconut oil because it's high in saturated fat and leads to high cholesterol levels. I've been shattering the fat and cholesterol myth for almost as long as I've been practicing medicine. Of course, the AHA still believe this is what causes heart disease. The research doesn't back it up. In fact, it finds just the opposite.

Numerous studies show that saturated fats like those found in coconut oil, butter and lard are good for your heart. As you know, I've told you before how cholesterol and fat can benefit your heart. I've also written to you many times about the heart-health benefits of coconut oil. And in just the last few months, I've seen some very powerful research that backs up what I've been saying. A recent study from the University of Cambridge in England found that coconut oil can lower the risk of heart disease and stroke when consumed every day for a month. In the study, researchers followed 94 volunteers between the ages of 50 and 75. None of them had a history of heart disease. After four weeks of eating three tablespoons of coconut oil a day, participants had a 15% rise in healthy HDL levels, leading the scientists to report that this superfood can lower your risk of developing heart disease or stroke. Another study looked at diabetes risk. It found that the medium-chain triglycerides (MCTs) in coconut oil significantly improve blood sugar levels and reduce insulin resistance.² And lowering your risk of diabetes greatly improves your chance of avoiding a heart attack. Further studies have shown that coconut oil: Boosts brain function in people with Alzheimer's disease³ Reduces inflammation and arthritis⁴ Prevents osteoporosis⁵ Protects the liver⁶ Improves body composition and weight in women⁷ All in all, there have been more than 1,500 studies proving coconut oil to be one of the healthiest foods on earth.

Al Sears, MD

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August 28, 2018

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10. FORTHCOMING EVENTS

Calendar of Conferences, Conventions and Symposia in India and abroad

(Get your event listed in this section by mailing complete details to the Editor: rnkohli@gmail.com)

10.1: International Conference on Dairy, organized by Indian Council of Food and Agriculture, as a part of the AgroWorld 2018 on October 26, 2018 at the IARI Campus, New Delhi. (The conference is organized under the Chairmanship of Dr. H. Rahman, South Asia Director, International Livestock Research Institute and former Dy. Director General, ICAR). Contact for details: Dr Sucheta Arora, Director – Knowledge Management and Organization, NDIAN COUNCIL OF FOOD AND AGRICULTURE, 214-217, B-Wing, Naurang House, KG Marg, New Delhi-110001; Ph: 011-41501465; Fax: 011-23353406; Mobile: +917087400468; <mailto:sucheta@icfa.org.in>; sucheta@icfa.org.in; sucheta.icfa@gmail.com> http://www.icfa.org.in/> www.icfa.org.in

10.2: XXV Annual Convention of Indian Society of Veterinary Immunology and Biotechnology (ISVIB) and National Conference VIBCON 2018 on "Innovative Biotechnological Approaches for Improving Animal Health and Productivity", 30th October 2018 to 1st November 2018; ICAR-National Research Centre on Mithun, Medziphema, Dimapur 797106, Nagaland. Details: Dr. Abhijit Mitra, Director, ICAR-National Research Centre on Mithun, Organizing Secretary: Web: www.nrcmithun.res.in/vibcon2018

10.3: 17th Convocation of NAVS (I) and Scientific seminar on "Livestock Sector towards One Health, Food Security and Safety" at OUAT, Bhubaneswar from 19th to 20th December 2018. Details: Dr. R. C. Patra, Organizing Secretary and Dean of Research, Orissa University of Agriculture and Technology (OUAT), Bhubaneswar, Odisha; Email: Ramesh Patra <navsconv18@gmail.com>; Phone: M-8249975506

10.4: International Seminar on "Recent Trends and Experimental Approaches in Science, Technology and Nature" December 23 -24, 2018, FDDI, Jodhpur, Rajasthan, India.

Details: <u>sfsn.seminar@gmail.com</u>, <u>ecosustainable@hotmail.com</u>; http://scienceandnature.org/conference/indexcon.html

10.5: 47th Dairy Industry Conference, 7th to 9th February, 2019, Samrat Ashok Convention Centre, Patna, Bihar. Organized by IDA (East Zone) on the

Theme: "Innovative Approach for Enhancing Dairy Farmers' Income". For More Information: Email: sks_682000@yahoo.com

10.6: India International Dairy Expo (IIDE) concurrent with a 2- day seminar on "Innovation & Technological Growth in Dairy Industry", March 12 - 14, 2019, at Bombay Exhibition Centre, Mumbai, India. To be Organized by Indian Dairy Association (West Zone) jointly with Koelnmesse YA Tradefair Pvt. Ltd. Details: Indian Dairy Association (West Zone) and Koelnmesse YA Tradefair Pvt Ltd. (E-mail: s.rane@koelnmesse-india.com)



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