

Dr. Komal Shah; M.Sc. (Biochemistry), Ph.D. (Life Sciences), PDF (Life Sciences)

Phone: (M) +91 9924264500, (R) 079 - 27571095

E-mail: drkomalhshah@gmail.com; kshah@iiphg.org

Mobile: 9924264500

PERSONAL INFORMATION

Name	Komal Shah
Address	5/Shyam Satya Bunglows, B/H Satyamev Hospital, Chandkheda, Ahmedabad, Gujarat - 382424
Nationality	Indian

QUALIFICATIONS OBTAINED

Post-Doctoral Fellow	Gujarat University, ICMR (2013)
Ph.D. (Life Sciences)	Gujarat University, UGC (2011)
M.Sc. (Biochemistry)	Gujarat University (2007)
B.Sc.(Biochemistry)	C.U.Shah Science College,Gujarat University (2005)

AWARDS:

Post-doctoral fellowship (RA)	ICMR (RA) 2012
Doctoral Studies	UGC (JRF-SRF) 2008
Selected for other post-doctoral fellowship	CSIR (RA)
	UGC (Women Scientist)
Best research paper awards	6 (International – 1; National – 5)

BROAD AREAS OF RESEARCH AND ACADEMIC WORK

- Public Health Research
- Biotechnology, biochemical and molecular biology research (wet-lab)
- Biostatistics

KEY AREA OF EXPERTISE

- Epidemiological research, Diagnostic and prognostic research on biochemical and molecular markers, Research designs, Quantitative research, Meta-analysis, Scientific/grant writing
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PRESENT APPOINTMENT

- **Assistant Professor**, Indian Institute of Public Health - Gandhinagar, Gandhinagar-Chiloda Road, Gandhinagar, Gujarat, India.

PREVIOUS APPOINTMENTS

- **Economic Evaluation Specialist and Adjoint Assistant Professor**
Indian Institute of Public Health - Gandhinagar, Gandhinagar-Chiloda Road, Gandhinagar, Gujarat, India. **July 2018**

- **Research officer:** UN Mehta Institute of cardiology and research centre, Asarwa Ahmedabad Gujarat, India. July 2013 to July 2018
- **Research Associate:** Department of Zoology, Gujarat University, Ahmedabad. **August 2011 to July 2013.**
- **Senior Research Fellow:** Department of Zoology, Gujarat University, Ahmedabad. **January 2011 to August 2011(doctoral tenure).**
- **Junior Research Fellow:** Department of Zoology, Gujarat University, Ahmedabad. **January 2008 to December 2010. (doctoral tenure).**

Research Papers

1. **Komal Shah**, Ashish Awasthi, Bhavesh Modi, Rashmi Kundapur, Deepak Saxena. Unfolding trends of COVID-19 transmission in India: Critical review of available Mathematical models. Vol. 32 No. 2 Special (2020): COVID - 19 Special Issue.
2. **Komal Shah**. 'Hospital versus home based rehabilitation in patients undergoing knee arthroplasty: Evaluation of current evidence through meta-analysis approach'. The Journal of the International Society of Physical and Rehabilitation Medicine. 2019;2(3):117.
3. **Komal Shah**, Sandul Yasobant, Deepak Saxena. Camel milk for reduction of diabetes risk: are we heading towards the right direction? Journal of Family Medicine and Primary Care. 2019 Oct;8(10):3083. Amber Malhotra, Shaival Majmudar, Sumbul Siddiqui, Himani Pandya, **Komal Shah**, Pranav Sharma, Kartik Patel, Hemang Gandhi. Midterm results of Mitral Valve Repair with Pericardial leaflet augmentation: A Single center experience. Seminars in Thoracic and Cardiovascular Surgery. 2019 Dec 19. WB Saunders.
4. Saha, S., Kotwani, P., Pandya, A., Patel, C., **Shah, K.**, Saxena, D., et al. (In Press). Addressing comprehensive primary healthcare in Gujarat through mHealth intervention: Early implementation experience with TeCHO+ programme. Journal of Family Medicine and Primary Care. 2020 Jan;9(1):340.
5. Pandya A, **Shah K**, Chauhan A, Saha S. Innovative mental health initiatives in India: A scope for strengthening primary healthcare services. Journal of Family Medicine and Primary Care. 2020 Feb;9(2):502.
6. **Komal Shah**, Nilesh Oswal, Himani Pandya. Identification of Candidate Genes for the Risk of CVD in Indians: Meta-Analysis of Available Literature. Advances in Cardiology and Cardiovascular Disorders (ACCD); 2017; 1:1.
7. Kamal Sharma, **Komal Shah**, Poonam Bhrambhatt, Yogini Kandre. Sharma K, Shah K, Brahmbhatt P, Kandre Y. Skipping breakfast and the risk of coronary artery disease. QJM: An International Journal of Medicine. 2018 Jul 16;111(10):715-9.
8. Balakrishnan M, Gandhi H, **Shah K**, Pandya H, Patel R, Keshwani S, Yadav N. Hydrocortisone, vitamin C and thiamine for the treatment of sepsis and septic shock following cardiac surgery. Indian journal of anaesthesia. 2018 Dec;62(12):934.
9. Sumbul Siddiqui, Amber Malhotra, **Komal Shah**, Pankaj Garg, Pranav Sharma, Vivek Wadhawa, Kartik Patel, Anand Shukla. "RFEF" & mitral regurgitation jet direction: surrogate markers for

likelihood of left ventricle reverse remodelling in patients with moderate chronic ischemic mitral regurgitation. Indian Journal of Thoracic and Cardiovascular Surgery.

10. Amber Malhotra, Sumbul Siddiqui, Vivek Wadhawa, Himani Pandya, Kartik Patel, **Komal Shah**, Hemang Gandhi, Pankaj Garg, Sudhir Adalti, Kamal Sharma. "CLAS" Score: An Objective Tool to Standardize and Predict Mitral Valve Reparability. Indian Journal of Thoracic and Cardiovascular Surgery (Communicated).
11. Kamal Sharma, Sachin Patil, Komal Shah, Roopesh Singhal, Amber Malhotra. "Did you notice the infarct related artery "wink" overlying ventricular septal rupture complicating acute MI?: An angiographic "winking coronary" sign". European Heart Journal: Acute Cardiovascular Care (Under revision)
12. Anand Shukla, Ashwal A Jayaram, Dhaval Doshi, Priyanka Patel, **Komal Shah**, Alok Shinde, Harsh Ghoniya, Karthik Natarajan, Tarun Bansal. The Young Myocardial Infarction Study of The Western Indians: YOUTH Registry - "Old is Gold for Young". Global Heart (Accepted).
13. Kamal Sharma, Neha Sharma, **Komal Shah**, Sachin Patil. Impact of coronary artery disease on augmentation index as measured by estimated Central Blood Pressure. Indian Heart Journal. <https://doi.org/10.1016/j.ihj.2017.12.001>. 2017.
14. **Komal Shah**, Pratik Shah. Effect of anthocyanin supplementations on lipid profile and inflammatory markers: A meta-analysis of randomized controlled trials. Cholesterol. Volume 2018, Article ID 8450793, 12 pages.
15. Sharma K, Singhal R, Jadhav N, **Shah K**, Patil S. Evaluation of SERENE-CAG score for assessing suitability for coronary angiography preoperatively in patients undergoing valve replacement surgery. Indian heart journal. 2018 Dec 1;70:S189-93.
16. Sharma K, **Shah K**, Patil S, Charaniya R, Bhatia H, Meniya J. Diagnostic accuracy of a novel 'winking coronary angiographic sign' in patients presenting with ventricular septal rupture complicating acute myocardial infarction. Indian heart journal. 2018 Dec 1;70:S403-5.
17. Kamal Sharma, Dhammdeep Humane, **Komal Shah**, Sachin Patil, Riyaz Charaniya, Jayesh Meniya. Androgenic alopecia, premature greying, and hair thinning as independent predictors of coronary artery disease in young Asian males. Cardiovascular endocrinology. 6(4):152-158, December 2017.
18. Dhaval Doshi, Kartik Natrajan, Priyanka Patel, **Komal Shah**. Modifiable Life Style Risk Factors for CAD in Young Dyslipidemic Gujarati's. Journal of Cardiovascular Medicine and Surgery. Volume 3, Issue 2, Jul-Dec 2017, Pages 95-101
19. Amber Malhotra, Chandrasekaran Ananthanarayanan , Vivek Wadhawa, Sumbul Siddiqui, Pranav Sharma, Kartik Patel, **Komal Shah**, Pratik Shah. OPCABG for Moderate CIMR in elderly- A Superior Option? Brazilian Journal of Cardiovascular Surgery. 2018;33(1):15-22
20. Jigar Surti, Imelda Jain, **Komal Shah**, Amit Mishra, Pankaj Garg, Yogini Kandre Jatin Shah, Ashok Shah, Payal Tripathi. Predictive efficacy of Procalcitonin, Platelets and White blood cells for sepsis in patients undergoing cardiac surgeries who are admitted to intensive care units: Single center experience. Annals of Pediatric Cardiology. 2018; 11:137-42.
21. Arvind Kumar Bishnoi, Pankaj Garg, Kartik Patel, Parth Solanki, Jigar Surti, Atul Solanki, **Komal Shah**, and Sanjay Patel. Effect of Prime Blood Storage Duration on Clinical Outcome after Pediatric Cardiac Surgery. World Journal for Pediatric and Congenital Heart Surgery, 2017, Vol. 8(2) 166-173.
22. Arvind Kumar Bishnoi, Pankaj Garg, Chandrasekaran Ananthanarayanan, Pranav Sharma, Amber Malhotra, Jigar Surti, Ritesh Shah, **Komal Shah**, Atul Solanki, Sanjay Patel. Cervical Cannulation for Surgical Repair of Congenital Cardiac Defects in Infants and Small children. Brazilian Journal of Cardiovascular Surgery 2017; 32(2):111-7.
23. Kamal Sharma, Alap K Patel, **Komal H Shah**, Ashwati Konat. Is Neutrophil-lymphocyte ratio a predictor of coronary artery disease in Western Indians? International Journal of Inflammation Volume 2017, Article ID 4136126, 8 pages.

24. Nilesh Oswal, Nikhil Jadhav, Dhammdeep Humne, Kamal Sharma, **Komal H Shah**. Balloon dilatation of native coarctation of aorta in neonates - short term clinical result. *Pediatric Review: International Journal of Pediatric Research*, January 2017/ Vol 4/ Issue 01 .
25. Abhishek Raval, Nikhil Jadhav, Jayesh Prajapati , Jayesh Rawal, Rajiv Garg , **Komal Shah**, Iva Patel. Distribution of coronary artery anomalies and their evaluation with different imaging modalities. *International Journal of Medical Research and Review*. Vol 4, No 10 (2016).
26. Bhavesh Thakkar, Abhishek Raval, Tarun Madan, Nilesh Oswal, Rhshikesh Umalkar, **Komal Shah** Bhumika Maheriya. Transvenous arterial duct stenting in cyanotic patients with pulmonary atresia and ventricular septal defect. *Progress in Pediatric Cardiology*. Volume 43, December 2016, Pages 119-126
27. Nikhil D Jadhav, Kamal H Sharma, **Komal H Shah**, Ashwati Konat, Dhammdeep Humane, Sachin Patil. Incidence and clinical profile of coronary artery disease in patients with rheumatic heart disease undergoing valvular intervention. *International Journal of Medical Research and Review*. Vol 4, No 10 (2016).
28. Amber Malhotra, Kartik Patel, Pranav Sharma, Chirag Doshi, Arvind Bisnoi, Vivek Wadhawa, Tarun Madan, Jagdish Khandeparkar, **Komal Shah**, Sanjay Patel. Techniques, Timing & Prognosis of Post Infarct Ventricular Septal Rupture: A Re-look at Old Dogmas . *Brazilian journal of cardiovascular surgery*. 2017 May-Jun; 32(3): 147–155.
29. Anand N Shukla, Manish Juneja, Himanshu Patel, **Komal H Shah**, Ashwati Konat, Bhavesh M Thakkar, Tarun Madan, Jayesh Prajapati. Diagnostic accuracy of serum Cystatin C for early recognition of contrast induced nephropathy in Western Indians undergoing cardiac catheterization. *Indian Heart Journal*. Volume 69, Issue 3, May–June 2017, Pages 311-315
30. Amber Malhotra, Pankaj Garg, Arvind Kumar Bishnoi, Pranav Sharma, Vivek Wadhawa, **Komal Shah**, Sanjay Patel, Umesh Kumar Ahirwar, Dayesh Rodricks, Himani Pandya . Dialyzer Based Cell Salvage System: A Superior Alternative to Conventional Cell Salvage in Off Pump Coronary Artery Bypass Grafting. *Interactive CardioVascular and Thoracic Surgery*. Volume 24, Issue 4, 1 April 2017, Pages 489–49.
31. Pankaj Garg, Arvind Kumar Bishnoi , Kartik Patel , Chandrashekar Annanthnarayan, Jigar Patel , Malkesh Talsariya , **Komal Shah**, Sanjay Patel Transverse Split Sternotomy: A Safe Mini-Invasive Approach for Repair of Congenital Cardiac Defects" Innovation technology and techniques of cardiovascular and thoracic surgery. 2017 Jul/Aug; 12(4):275-281.
32. Arvind Kumar Bishnoi, Pankaj Garg, Kartik Patel, Parth Solanki, Jigar Surti, Atul Solanki, **Komal Shah**, Sanjay Patel. Effect Of Prime Blood Storage Duration On Clinical Outcome After Pediatric Cardiac Surgery. *World Journal for Pediatric and Congenital Heart Surgery*. Vol 8, Issue 2, 2017
33. Pankaj Garg, Arvind Kumar Bishnoi, Kartik Patel, Vivek Wadhawa, Jigar Surti, Atul Solanki, **Komal Shah**, Sanjay Patel. Hemodiafiltration- A Technique for Physiological Correction of Priming Solution in Pediatric Cardiac Surgery: An In-Vitro Study. *Artificial Organs*. 2017 Aug;41(8):773-778
34. Jagjeet Deshmukh Jayesh S. Prajapati **Komal H. Shah** Krutika H. Patel Subhash D. Chaudhari Pooja M. Vyas Alok Shinde Saurabh R. Bagga. High density lipoprotein cholesterol as a risk factor of coronary artery diseases in young Western Indians: A comparison with other lipid markers. *National Journal of Laboratory Medicine*; Oct-Dec 2016: Volume 5: Issue 4; pp 1-5
35. Hasit Joshi, Ronak Shah, Jayesh Prajapati, Vipin Bhangdiya, Jayal Shah, Yogini Kandre, **Komal Shah**. Diagnostic accuracy of CT angiography as compared to conventional angiography in patients undergoing major non-coronary cardiac surgery. *Heart Views*; 2016; Volume 17: Issue 3: pp 88-91
36. Dr Hasit Joshi, **Dr Komal Shah**, Ms Priyanka Patel. Novel indexes for diagnosing metabolic syndrome in apparently healthy Gujarati Asian Indians: A cross-sectional study. *QJM: An International Journal of Medicine*; Apr 2016; Volume 109: Issue 11: pp 717-722, 3.131
37. Jayesh S. Prajapati, Jagjeet K. Deshmukh, Krutika H. Patel, **Komal H. Shah**, Hasit J. Joshi, Ranajeet More, Sibasis S. Sahoo. Apolipoprotein B/Apolipoprotein A-I ratio a better diagnostic

marker of coronary heart disease than conventional LDL/HDL ratio. National Journal of Laboratory Medicine; July 2016:Volume 5: Issue 3: pp BO01-BO05

38. Pranav Sharma, Kartik Patel, Kinneresh Baria, Ketav Lakhia, Amber Malhotra, **Komal Shah**, Sanjay Patel. Procalcitonin level for prediction of postoperative infection in cardiac surgery. Asian Cardiovascular & Thoracic Annals: May 2016; Volume 24: Issue 4: pp 344-349.

BEST PAPER AWARDS

- Shah K & Verma RJ (2009) Protection against butylparaben-induced oxidative damage in human erythrocytes by aqueous extract of *Ocimum sanctum* Linn. *International Conference on Biomedical and Genomic Research*, Ahmedabad, January 29-31, 2009. (**2nd prize – Poster presentation**)
- Shah K & Verma RJ (2010) Toxicological evaluation of butylparaben on mice liver *Science Excellence*, January 9, Ahmedabad. (**1st prize – Oral presentation**)
- Shah K & Verma RJ (2011) Protection against butylparaben induced oxidative stress by *Ocimum sanctum* extract in mice liver homogenate. *Science Excellence-2010*, Ahmedabad January 9, Ahmedabad (**1st prize – Oral presentation**)
- Shah K & Verma R J (2011). In vivo evaluation of butylparahydroxybenzoic acid induced hepatotoxicity and its mitigation by *Ocimum sanctum* extract. Synergy of Biosciences, Kalyan. February 26-27, 2011, Mumbai (**2nd Prize – Oral presentation**).
- Shah K & Verma R J (2011). Mechanistic approach of butylparaben intoxication and protective role of plant polyphenols. **National** conference on Basic Science as Foundation of Applied Science and Technology (BSFAST-2012). Sir P.P. Institute of Science, Bhavnagar (**1st prize – Oral presentation**)
- Shah K, Oswal N, Pandya H (2017). Identification of candidate genes for risk of CVD in Indians. 2nd MMM genetics meeting 2017, “Symposium on Genetics and Genomics in Cardiovascular Diseases”. 8-9th September, 2017. Madras Medical Mission, Chennai, India (**1st Prize – Poster presentation**).

EXTRACURRICULAR ACTIVITY

- Trained in Indian Classical Music (Vocals)
- Cleared two stages of Reiki