

CURRICULUM VITAE

VINCENT Flavien

I. CURRENT POSITION

1. RESEARCH FELLOW (02/2020 - current)

- Research Fellow at Cardiovascular Research Foundation, New York City, NY, USA

1. ATTENDING PHYSICIAN (11/2019 – current)

- Senior Interventional cardiologist at Lille University Hospital, Lille, France

2. ACADEMIC APPOINTMENTS (11/2018 - current)

- Post-doctoral researcher: Unité Inserm UMR 1011, Team 2: Cardiac diseases, blood flow modification and hemostasis; Lille University; France (Director : Sophie Susen et Eric Van Belle)

3. PROFESSIONAL ORGANIZATION AND SOCIETIES

- EAPCI (European Association for Percutaneous Coronary Intervention) education committee (since 2017)
- EAPCI liaison officer for the clinical case gallery & selection committee for clinical case gallery (since 2018)
- EAPCI: scientific document committee (since 2020)
- Member of scientific committee for « Printemps de la Cardiologie 2019 », in charge of valvular diseases

II. EDUCATION

1. BOARD QUALIFICATION

- Cardiovascular disease Specialty (09/2015 - 07/2015; Lille University)
- Interventional Cardiology (09/2016 - 06/2018; Paris Créteil University)
- Certification in animal experimentation (09/2016 - 06/2017; Lille University); in echocardiography (09/2015 - 06/2016; Lille University); in intensive care unit (09/2015 - 06/2016; Lille University); in simulation-based medical education (09/2017-06-2018)

2. ACADEMIC TRAINING

- PhD degree (PhD) (11/2015 - 12/2018, Lille University)
- MD Thesis (01/2015 - 12/2016, Lille University)
- MSc (09/2014 - 09/2015) (Paris Diderot University)

3. MEDICAL TRAINEESHIP

- Resident in Cardiology (11/2011 - 10/2016, Lille University Hospital)
 - Including a traineeship in interventional Cardiology at Nimes University Hospital, Pr G. Cayla, France (05/2016 - 10/2016)
- Medicine school (09/2005 - 08/2011, University of Medicine of Montpellier, France)

- Fellow in interventional cardiology for coronary and structural procedures (Chef de Clinique des Universités – Assistant des hôpitaux); Lille University Hospital (Pr E. Van Belle); Faculty of medicine, Lille university 2

III. RESEARCH ACTIVITES

1. ONGOING STUDIES (LILLE PRIMARY INVESTIGATOR)

- Multicenter randomized trial WITAVI-REAL: Von Willebrand factor to improve real-time management of paravalvular regurgitation during minimally invasive TAVI: WITAVI-REAL Trial (PI: Flavien VINCENT)
- WITAVI study: Prospective registry for patients implanted with cardiovascular devices and biomarker bank
- PHAM study: Prevention of bleeding for patients on mechanical circulatory devices), investigateur principal Pr Susen
- WITECMO study. Bleeding events and modification of pulsatility on ECLS patients

2. CO-INVESTIGATOR

- Academic studies: ATLANTIS, ALPHEUS, EASY-TAVI, TICTAVI, CICD Study, COREABOR, FRANCE TAVI
- Industrial studies: LOW-RISK TAVR, ENVISAGE TAVR, GALLILEO, SCOPE II, AEGIS II, TCW, AEGIS II, Heartflow

3. RESEARCH GRANT

- **RHU WILL-ASSIST HEART** project (New diagnostic and therapeutic solutions to control bleeding complications during the use of mechanical circulatory support devices) 2017-2022 (Co-investigator)
- **PSPC-BPI France CALYPSO project**: Connected cardiac assist LVAD therapy respecting patient physiology for an optimized care 2018-2022 (Co-investigator)
- **ANR 2018** : Role of Retinoid Acid in fibrocalcification of aortic valve stenosis (**RETINAVS**) (Co-investigator)

4. PATTERN:

- **Co-Inventor** : Novel utilization of recombining von Willebrand factor. Pattern Numéro FR1552982. 2015/04/07.

5. PRIZE AND FUNDING

- Research grant of french federation of cardiology for MSc (2015)
- National Prize of best French MD Thesis (prix gallavardin; 2016)
- Prize of best poster, printemps de la cardiologie (2016)
- French national grant for clinical research (2016)
- Research grant for international fellowship (University hospital from North of France, 2019)
- Research grant for international fellowship of French federation of cardiology (2019)

IV. PUBLICATIONS (peer reviewed)

1. PUBLICATIONS

- **Vincent F**, Ternacle J, Pibarot P., Van Belle E. TAVR in bicuspid aortic stenosis. *Circulation* 2020 (in press)

- Ternacle J, Guimaraes L, **Vincent F**, Côté N, Côté M, Lachance D, Clavel MA, Abbas AE, Pibarot P, Rodés-Cabau J. Reclassification of prosthesis-patient mismatch after transcatheter aortic valve replacement using predicted vs. measured indexed effective orifice area. *Eur Heart J Cardiovasc Imaging*. 2020 Sep 30;jeaa235. doi: 10.1093/ehjci/jeaa235. Epub ahead of print. PMID: 32995865.
- Ternacle J, Guimaraes L, **Vincent F**, Côté N, Côté M, Lachance D, Clavel MA, Abbas AE, Pibarot P, Rodés-Cabau J. Reclassification of prosthesis-patient mismatch after transcatheter aortic valve replacement using predicted vs. measured indexed effective orifice area. *Eur Heart J Cardiovasc Imaging*. 2020 Sep 30;jeaa235. doi: 10.1093/ehjci/jeaa235. Epub ahead of print. PMID: 32995865.
- Rauch A, Dupont A, Goutay J, Caplan M, Staessens S, ..., Staels B, Van Belle E, **Vincent F**, Kipnis E, Lenting P, Poissy J, Susen S; Lille Covid Research Network(LICORNE). Endotheliopathy is induced by plasma from critically-ill patients and associated with organ failure in severe COVID-19. *Circulation*. 2020 Sep 24. doi: 10.1161/CIRCULATIONAHA.120.050907. Epub ahead of print. PMID: 32970476.
- Schurtz G, **Vincent F**, Debry N, Delhay C, Van Belle E. Role of TAVR for Cardiogenic Shock Related to Aortic Stenosis: Many Unanswered Questions. *JACC Cardiovasc Interv*. 2020 Sep 14;13(17):2083. doi: 10.1016/j.jcin.2020.07.010. PMID: 32912464.
- Yoon SH, Kim WK, Dhoble A, ..., **Vincent F**, et al. Bicuspid Aortic Valve Stenosis Transcatheter Aortic Valve Replacement Registry Investigators. Bicuspid Aortic Valve Morphology and Outcomes After Transcatheter Aortic Valve Replacement. *J Am Coll Cardiol*. 2020 Sep 1;76(9):1018-1030. doi: 10.1016/j.jacc.2020.07.005. PMID: 32854836.
- **Vincent F**, Van Belle E, Susen S. Letter by Vincent et al Regarding Article, "The Evolving Landscape of Impella Use in the United States Among Patients Undergoing Percutaneous Coronary Intervention With Mechanical Circulatory Support". *Circulation*. 2020 Aug 11;142(6):e80-e81. doi: 10.1161/CIRCULATIONAHA.120.045522. Epub 2020 Aug 10. PMID: 32776847.
- Van Belle E, Labreuche J, **Vincent F**. Five-Year Outcomes with Transcatheter Aortic-Valve Replacement. Reply. *N Engl J Med*. 2020 Aug 6;383(6):596. doi: 10.1056/NEJMc2018853. PMID: 32757533.
- Lescroart M, Hébert JL, **Vincent F**, Nguyen LS. Pulsatility in ventricular assistance devices: A translational review focused on applied haemodynamics. *Arch Cardiovasc Dis*. 2020 Jun-Jul;113(6-7):461-472. doi: 10.1016/j.acvd.2020.03.017. Epub 2020 Jul 9. PMID: 32653240. Debry N, Trimech TR, Gandet T, **Vincent F** et al. Transaxillary compared with transcarotid access for TAVR: a propensity-matched comparison from a French multicenter registry. *EuroIntervention*.2020;EIJ-D-20-00117.doi:10.4244/EIJ-D-20-00117
- Levy C, Lassailly G, El Amrani M, **Vincent F**, et al. Trans-catheter aortic valve replacement (TAVR) as bridge therapy restoring eligibility for liver transplantation in cirrhotic. *Am J Transplant*.2020;10.1111/ajt.15955.doi:10.1111/ajt.15955
- Tarantini G, Nai Fovino L, Le Prince P, Darremont O, Urena M, Bartorelli AL, **Vincent F**, Hovorka T, Alcalá Navarro Y, Dumonteil N, Ohlmann P, Wendler O. Coronary Access and Percutaneous Coronary Intervention Up to 3 Years After Transcatheter Aortic Valve Implantation With a Balloon-Expandable Valve. *Circ Cardiovasc Interv*. 2020 Jul;13(7):e008972. doi: 10.1161/CIRCINTERVENTIONS.120.008972. Epub 2020 Jun 25. PMID: 32580586
- **Vincent F**, Spillemaeker H, Kyheng M, et al. Ultrasound Guidance to Reduce Vascular and Bleeding Complications of Percutaneous Transfemoral Transcatheter Aortic Valve Replacement: A Propensity Score–Matched Comparison. *Journal of the American Heart Association* 2020;9:e014916.
- Van Belle E, **Vincent F**, Labreuche J, et al. Balloon-Expandable Versus Self-Expanding Transcatheter Aortic Valve Replacement. *Circulation* 2020;141:243–259.

- Van Belle E, Cosenza A, Baptista SB, **Vincent F**, et al. Usefulness of Routine Fractional Flow Reserve for Clinical Management of Coronary Artery Disease in Patients With Diabetes. *JAMA Cardiol* 2020.
- Van Belle E, Delhaye C, **Vincent F**. The Mirage of the Optimal Implantation Depth With Transcatheter Bioprosthesis. *JACC: Cardiovascular Interventions* 2019;S1936879819322277.
- G Leurent, L. Bonello, G. Cayla, B. Seguy, E. La Scala, **F. Vincent**, P. Commeau. Réalisation d'angioplasties coronaires à haut risque sous support mécanique hémodynamique : un consensus des groupes USIC et GACI de la SFC. *Archives des Maladies du Coeur et des Vaisseaux - Pratique*. 2019;2019:24–32.
- Van Belle E, **Vincent F**, Rauch A, et al. von Willebrand Factor and Management of Heart Valve Disease. **Journal of the American College of Cardiology** 2019;73:1078–1088.
- Yoon S-H, Bleiziffer S, Latib A, Eschenbach L, Ancona M, **Vincent F**, Kim W-K, Unbehaum A, Asami M, Dhoble A, Silaschi M, Frangieh AH, Veulemans V, Tang GHL, Kuwata S, Rampat R, Schmidt T, Patel AJ, Nicz PFG, Nombela-Franco L, Kini A, Kitamura M, Sharma R, Chakravarty T, Hildick-Smith D, Arnold M, de Brito FS, Jensen C, Jung C, Jilaihawi H, Smalling RW, Maisano F, Kasel AM, Treede H, Kempfert J, Pilgrim T, Kar S, Bapat V, Whisenant BK, Van Belle E, Delgado V, Modine T, Bax JJ, Makkar RR. Predictors of Left Ventricular Outflow Tract Obstruction After Transcatheter Mitral Valve Replacement. **JACC: Cardiovascular Interventions**. 2019;12:182–193
- Coisne A, Ninni S, Edmé J-L, Modine T, Mouton S, Pilato R, Ridon H, Richardson M, Klein C, Ortmans S, Seunes C, Madika A-L, Ledieu G, Jacquelinet M, Boutie B, Altes A, **Vincent F**, Koussa M, Jegou B, Vincentelli A, Juthier F, Robin E, Staels B, Lancellotti P, Montaigne D. Obesity Paradox in the Clinical Significance of Effective Prosthetic Orifice Area After Aortic Valve Replacement. **JACC: Cardiovascular Imaging**. 2019;12:208–210.
- Yoon S-H, Whisenant BK, Bleiziffer S, Delgado V, Dhoble A, Schofer N, Eschenbach L, Bansal E, Murdoch DJ, Ancona M, Schmidt T, Yzeiraj E, **Vincent F**,, Makkar RR. Outcomes of transcatheter mitral valve replacement for degenerated bioprostheses, failed annuloplasty rings, and mitral annular calcification. **Eur Heart J**. 2019;40:441–451.
- Kibler M, Marchandot B, Messas N, Labreuche J, **Vincent F**, et al. Primary Hemostatic Disorders and Late Major Bleeding After Transcatheter Aortic Valve Replacement. **J. Am. Coll. Cardiol**. 2018;72:2139–2148.
- **Vincent F**, Rauch A, Vincentelli A, et al. Real-time monitoring of von Willebrand factor in the catheterization laboratory: the seatbelt of mini-invasive TAVR? **JACC Cardiovasc Interv**. 2018 2018;11:1775–1778.
- **Vincent F**, Rauch A, Loobuyck V, et al. Arterial Pulsatility and Circulating von Willebrand Factor in Patients on Mechanical Circulatory Support. **Journal of the American College of Cardiology** 2018;71:2106–2118.
- Debry N, Kone P, **Vincent F**, et al. Urgent balloon aortic valvuloplasty in patients with cardiogenic shock related to severe aortic stenosis: Time matters. **EuroIntervention** 2018.
- Kibler M, Marchandot B, Messas N, Caspar T, **Vincent F**, Hunolstein J-JV, Grunebaum L, Reydel A, Rauch A, Crimizade U, Kindo M, Minh TH, Trinh A, Petit-Eisenmann H, Poli FD, Leddet P, Jesel L, Ohlmann P, Susen S, Belle EV, Morel O. CT-ADP Point-of-Care Assay Predicts 30-Day Paravalvular Aortic Regurgitation and Bleeding Events following Transcatheter Aortic Valve Replacement. **Thromb Haemost**. 2018;
- Yoon S-H, Schmidt T, Bleiziffer S, Schofer N, Fiorina C, Munoz-Garcia AJ, Yzeiraj E, Amat-Santos IJ, Tchetché D, Jung C, Fujita B, Mangieri A, Deutsch M-A, Ubben T, Deuschl F, Kuwata S, De Biase C, Williams T, Dhoble A, Kim W-K, Ferrari E, Barbanti M, Vollema EM, Miceli A, Giannini C, Attizzani GF, Kong WKF, Gutierrez-Ibanes E, Jimenez Diaz VA, Wijesundera HC, Kaneko H, Chakravarty T, Makar M, Sievert H, Hengstenberg C, Prendergast BD, **Vincent F**,, Latib A, Makkar RR. Transcatheter Aortic Valve Replacement in Pure Native Aortic Valve Regurgitation. **Journal of the American College of Cardiology**. 2017;70:2752–2763.
- Van Belle E, Gil R, Klauss V, Balghith M, Meuwissen M, Clerc J, Witzenbichler B, Cercek M, Vlachojannis M, Lang I, Commeau P, **Vincent F**, Testa L, ..., Sardella G. Impact of Routine Invasive Physiology at Time of Angiography in

Patients With Multivessel Coronary Artery Disease on Reclassification of Revascularization Strategy: Results From the DEFINE REAL Study. **JACC Cardiovasc Interv.** 2018;11:354–365.

- Van Belle E, Baptista S-B, Raposo L,, **Vincent F**, Dupouy P. Impact of Routine Fractional Flow Reserve on Management Decision and 1-Year Clinical Outcome of Patients With Acute Coronary Syndromes: PRIME-FFR (Insights From the POST-IT [Portuguese Study on the Evaluation of FFR-Guided Treatment of Coronary Disease] and R3F [French FFR Registry] Integrated Multicenter Registries - Implementation of FFR [Fractional Flow Reserve] in Routine Practice). **Circulation: Cardiovascular Interventions.** 2017;10:e004296.
- Van Belle E, Rauch A, **Vincent F**, et al. Von Willebrand Factor Multimers during Transcatheter Aortic-Valve Replacement. **New England Journal of Medicine** 2016;375:335–344.
- Rauch A, Caron C, **Vincent F**, et al. A novel ELISA-based diagnosis of acquired von Willebrand disease with increased VWF proteolysis: **Thrombosis and Haemostasis** 2016;115:950–959.

2. CLINICAL CASE

- Modine T, **Vincent F**, Delhaye C, Van Belle E. A dedicated Y-shaped percutaneous ECMO cannula for femoral 2-in-1 vascular access during high-risk procedures. *Catheter Cardiovasc Interv.* 2020 Oct 1. doi: 10.1002/ccd.29299. Epub ahead of print. PMID: 33001555.
- **Vincent F**, Lamblin N, Classe M, et al. Subacute right heart failure revealing three simultaneous causes of post-embolic pulmonary hypertension in metastatic dissemination of breast cancer. **ESC Heart Fail** 2016;4:75–77.

3. EDITORIAL

- Van Belle E, Delhaye C, **Vincent F**. Structural Valve Deterioration at 5 Years of TAVR Versus SAVR: Half Full or Half Empty? *J Am Coll Cardiol.* 2020 Oct 20;76(16):1844-1847. doi: 10.1016/j.jacc.2020.09.009. PMID: 33059829.
- Tastet L, **Vincent F**, Pibarot P. Cardiac Damage Staging in Aortic Stenosis: A Perspective From the Cardiac Catheterization Laboratory. *Can J Cardiol.* 2020 Oct;36(10):1583-1586. doi: 10.1016/j.cjca.2020.03.033. Epub 2020 Mar 30. PMID: 32634394.
- **Vincent F**, Rauch A, Loobuyck V, et al. von Willebrand Factor for Aortic Valve Intervention: From Bench to Real-Time Bedside Assessment. **Circulation Research** 2018;122:1499–1500.
- Van Belle E, **Vincent F**, Raposo L, Bravo Baptista S, Dupouy P. Reclassification of Treatment Strategy by Routine Coronary Pressure Assessment—Episode 7 of the Saga: The More You Look, the More You Find It!. **JACC: Cardiovascular Interventions.** 2018;11:2095–2098.

4. ABSTRACTS

- **Vincent F**, Rauch A, Susen S, Van Belle E. Abstract P5902: Preservation of arterial pulsatility to prevent acquired von willebrand disease with continuous-flow left ventricular assist device: insights from a pig model. *Eur Heart J* 2016;37:985–1393.
- **F Vincent**, A Rauch, J Labreuche, M Kibler, O Morel, E Jeanpierre, C Delhaye, N Rouse, N Debry, M Levade, C Paris, PJ Lenting, F Juthier, S Susen, E Van Belle. Von willebrand factor for bedside diagnosis of aortic regurgitation in cathlab and prediction of outcome during TAVR. *Eur Heart J* 2016

- **Vincent F**, Rauch A, Loobuyck V, et al. Abstract 038 - Pulsatility as modulator of acquired VWF defect in a pig model of continuous-flow ventricular assist device. Archives of Cardiovascular Diseases Supplements 2017;9:172.
- **Vincent F**, Rauch A, Juthier F, et al. Abstract P2967 Von Willebrand factor as a marker of successful transcatheter aortic valve implantation in low-flow/low-gradient aortic stenosis: insights of WITAVI study. Eur Heart J 2017;38.
- **F Vincent**, C Delhaye, F Juthier, M Richardson, A Hertault, M Kyheng, C Belin, A Pierache, T Denimal, A Coisne, V Loobuyck, E Van Belle. Point-of-care Ultrasound guidance to reduce vascular access complications in transfemoral TAVR. Archives of Cardiovascular Diseases Supplements 11 (3), e309 2019.

5. PUBLICATIONS IN FRENCH

- Rauch A, **Vincent F**, Van Belle E, Susen S. Le facteur Willebrand et le PFA : une alternative biologique à l'échographie cardiaque dans l'évaluation de la procédure TAVI ? Revue Francophone des Laboratoires. 2017;2017:60–66.
- Schurtz G, Delhaye C, **Vincent F**, Lemesle G. Durée optimale de la double antiagrégation plaquettaire après angioplastie coronaire percutanée complexe. Archives des Maladies du Coeur et des Vaisseaux - Pratique 2017; 2017: 28–30.
- G Leurent, L. Bonello, G. Cayla, B. Seguy, E. La Scala, **F. Vincent**, P. Commeau. Réalisation d'angioplasties coronaires à haut risque sous support mécanique hémodynamique : un consensus des groupes USIC et GACI de la SFC. Archives des Maladies du Coeur et des Vaisseaux - Pratique. 2019;2019:24–32.

6. EDUCATIONAL BOOK CHAPTERS

- Polycopié national ouvrage de référence du collège des enseignants de cardiologie pour les fondamentaux de la maladie cardiovasculaire en DFGSM, 2^{ème} édition (2018) : Rédaction du Chapitre « Douleur thoracique »
- Encyclopédie médico-chirurgicale (2018) : Rédaction du Chapitre « Angor Stable »
- Rédacteur de l'EAPCI Core Curriculum in interventional cardiology (2018): chapitres : « lésions résistantes » ; « maladie des greffons veineux »

7. COMMUNICATIONS INTERNATIONAL CONGRESSES

- PCR London Valves in Berlin, 2015: TAVI for aortic regurgitation requiring rescue extracorporeal membrane oxygenation
- TCT 2016, Washington: TAVR in patients with coronary artery disease (for the coronary atheroma and interventional cardiology group (GACI)
- Cardiac Surgery & interventional course, Lille 2017: Von Willebrand Factor bedside monitoring to improve TAVI procedural outcomes?
- Eurochorus, Strasbourg, 2017: Aortic regurgitation and TAVI, input of Von Willebrand factor multimers.
- EuroPCR 2017, Paris: A rare cause of myocardial ischemia: the « swiss cheese » coronary pattern
- Complex cardiovascular therapeutics C3, Orlando, USA, 2017: paravalvular regurgitation in 2017: still an issue ?

- Complex cardiovascular therapeutics C3, Orlando, USA, 2017: Von Willebrand Factor to detect PVR during TAVR and monitor its correction ?
- EuroPCR 2019, Paris: Ultrasound-Guidance to reduce vascular complications in TAVR
- TCTconnect 2020: Impact of time-of-day on clinical outcomes: insights of PARTNER trials

- **Commented poster**

- ESC 2018, Munich: Modulation of the acquired VWF defect by arterial pulsatility in continuous-flow mechanical circulatory devices
- ESC 2018, Munich: Platelet desialylation induced by high shear-stress mechanical circulatory support
- AHA 2018, Anaheim, moderated poster: Pulsatility as a modulator of circulatory support-related acquired VWF defect
- ESC 2017, Barcelone, moderated poster: Von willebrand factor as a marker of successful transcatheter aortic valve implantation
- ESC 2017, Barcelone, moderated poster: Acquired von wilebrand factor defect under continuous-flow ventricular assist devices: modulation by dynamic changes of pulsatility
- ESC 2016, Rome: Preservation of arterial pulsatility to prevent acquired von Willebrand disease with continuous-flow left ventricular assist device: insights from a pig model

8. COMMUNICATIONS IN NATIONAL CONGRESSES

- JFIC 2014 : 4 causes d'hypertension pulmonaire dans un contexte de néoplasie pour expliquer une dyspnée d'évolution foudroyante
- TUC 2015 : Hématome spontané disséquant du post-partum
- TUC 2016 : Quelle technique d'assistance en salle de cathéterisme pour les angioplasties à haut risque ?
- GRCI 2015 : Evaluation d'une fuite aortique per-procédure TAVI : intérêt de l'approche biologique
- GACI 2016: une rupture anastomotique d'un pontage coronaire traitée par angioplastie
- Printemps de la cardiologie 2016 : Le facteur Willebrand : un marqueur de flux pour l'identification des régurgitations aortiques post-TAVI
- GRCI 2016: « complications valvulaires des assistances circulatoires mécaniques : à propos de 2 cas »
- GRCI 2016: « Etude de la multimérisation du facteur von Willebrand pour identifier les insuffisances aortiques pendant les TAVI »
- Printemps de la cardiologie 2016: Role of the arterial pulsatility in modulation of von willebrand factor in an animal model implanted percutaneously with a continuous-flow ventricular assist device
- GACI 2017, Paris : Un infarctus peut en cacher un autre...
- SFAR Paris, 2017: Le Willebrand, stéthoscope biologique du remplacement valvulaire
- JESFC 2017 : étude des anomalies de multimérisation du facteur von willebrand pour l'identification des insuffisances aortiques post-TAVI
- GRCI Paris, 2018 : Session Pubmed : Von willebrand factor during TAVR
- CCF-GRRC Marseille, 2018 : le Willebrand dans le TAVI

- **Commented poster**

- Printemps de la cardiologie 2017: Pulsatility as modulator of acquired VWF defect in a swine model of continuous-flow ventricular assist device
- ESC 2016: « Preservation of arterial pulsatility to prevent acquired von willebrand disease with continuous-flow left ventricular assist device: insights from a pig model »
- Printemps de la cardiologie 2016: Le facteur willebrand : un marqueur de flux pour l'identification des régurgitations aortiques post-TAVI

9. REVIEWER

- JACC; JACC: cardiovasc Intervention; Structural Heart Journal; Coronary artery disease

Lille, November 5th, 2020

Flavien VINCENT

